Appendix J Laboratory Analytical Reports

Arsenic Speciation (Total Metals in ug/L) Pore Water Samples Ajax/Magnolia Mines SI, July 2003 ARSENIC (III) ARSENIC (V) Site Sample No. Date ST-PWP-04 AJAX 07/17/03 26.9 258 ST-PWP-53 07/19/03 <2U 77.9 GRAN GRAN ST-PWP-54 07/18/03 3.1 81.7 MAGN ST-PWP-01 07/18/03 <2U <2U MAGN ST-PWP-02 07/18/03 <2U 125

07/18/03

<2U

54.4

ST-PWP-03

MAGN

Total Metals (ug/L) Surface Water Samples Ajax/Magnolia Mines SI, July 2003

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Site	Sample No.	Date	ALUMINUM	ANTIMONY	ARSENIC	ARSENIC (III)	ARSENIC (V)	BARIUM	CALCIUM	CHROMIUM, TOTAL	COBALT	COPPER	IRON	LEAD	MAGNESIUM	MANGANESE	MERCURY	NICKEL	POTASSIUM	SODIUM	THALLIUM	VANADIUM	ZINC
AJAX	AD-SFW-07	07/17/03	27.7B	<3.8U	2.6B	<2U	29.2	12.1B	105000	3B	<1.8U	<1.4U	<16.8U	1.6B	58000	215	0.11B	9.9B	3460B	5170	<2.8U	<2.2U	<5.7U
MAGN	AD-SFW-13	07/18/03	367	<4.7U	239	2.2	164	26.5B	134000	<1.4U	13B	5.3B	9530	<1.3U	69400	1740	0.33	68	4930B	6420	<2.8U	<2U	35.3
MAGN	AD-SFW-55	07/19/03	1180	<4.7U	<4.8U	<2U	<2U	52.3B	21500	<1.4U	<2U	2.4B	636	<1.3U	10500	48.9	0.13B	<2.1U	1360B	6340	3.7B	2.6B	5.4B
AJAX	PD-SFW-06	07/17/03	56.5B	<3.8U	5.4B	<2U	3.2	10.9B	107000	<0.6U	<1.8U	3B	765	<1.5U	58800	154	0.12B	6.9B	3530B	5230	<2.8U	<2.2U	11.9B
MAGN	PD-SFW-11	07/18/03	33.4B	<4.7U	9.7B	<2U	6.8	16.2B	133000	<1.4U	5.5B	<2.4U	64.3B	<1.3U	69100	905	0.14B	39.4B	4680B	5580	3.1B	<2U	11.5B
AJAX	ST-SFW-04	07/17/03	48.1B	4.2B	23.6	<2U	22.7	69.8B	40600	<0.6U	<1.8U	<1.4U	151	<1.5U	18600	12.8B	0.15B	<2U	2570B	6480	<2.8U	<2.2U	<5.7U
AJAX	ST-SFW-52	07/17/03	33.8B	<3.8U	47.3	73.2	186	33.1B	107000	<0.6U	<1.8U	<1.4U	31.1B	1.7B	56500	362	<0.1U	<2U	4520B	5450	<2.8U	<2.2U	<5.7U
GRAN	ST-SFW-53	07/19/03	93.9B	<4.7U	13.1	24.8	8.6	54.8B	15100	<1.4U	<2U	<2.4U	113	<1.3U	3470B	18.8	0.11B	<2.1U	1850B	3130B	3.1B	<2U	3.6B
GRAN	ST-SFW-54	07/17/03	54.1B	<3.8U	12.6	<2U	12.8	53.3B	16200	<0.6U	<1.8U	<1.4U	78.1B	<1.5U	4120B	15	0.14B	<2U	2530B	3490B	<2.8U	<2.2U	<5.7U
MAGN	ST-SFW-01	07/18/03	51.8B	4.4B	<2.4U	<2U	<2U	56.5B	28400	<0.6U	<1.8U	<1.4U	57.1B	<1.5U	12900	4.8B	0.11B	<2U	2320B	6570	<2.8U	2.4B	<5.7U
MAGN	ST-SFW-02	07/18/03	60B	4.9B	36.2	<2U	35	65.1B	40900	<0.6U	<1.8U	<1.4U	464	1.7B	18700	28	0.18B	<2U	2790B	6300	<2.8U	<2.2U	<5.7U
MAGN	ST-SFW-03	07/18/03	40.5B	<4.7U	29.6	<2U	22.5	73.3B	42200	<1.4U	<2U	<2.4U	266	<1.3U	19400	7.4B	0.18B	<2.1U	2410B	6200	<2.8U	<2U	4B

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCD002



September 12, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCD002

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 22 and 24, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client <u>Sample ID</u>	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/22/03	ETR No: 94941	
535363 535364 535365 535366 535367 535368 535369 535370 535371 535372 535373 535373MS 535373DP	AJAXSTPSD04 AJAXPDSSD06 AJAXSTRSD04 AJAXSTSSD52 GRANSTRSD54 GRANSTPSD54 MAGNSTPSD03 MAGNPDSSD11 MAGNSTPSD02 MAGNSTPSD01 GRANSTPSD53 GRANSTPSD53MS GRANSTPSD53REP	07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/18/03 07/18/03 07/18/03 07/18/03 07/19/03 07/19/03	Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment
535374	GRANSTRSD53	07/19/03	Sediment
	Received: 07/24/03	ETR No: 95000	
535813 535814 535815 535816 535817 535818	BLUESTPSD05 BLUESTPSD05100 BLUESTPSD06 BLUESTRSD08 BLUESTPSD08 BLUESTPSD07	07/21/03 07/21/03 07/21/03 07/20/03 07/20/03 07/20/03	Sediment Sediment Sediment Sediment Sediment

One of the sample containers for the sample designated BLUESTPSD08 was received broken.

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample login is included in the Sample Handling section of this submittal.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Metals by 6010B:

The sample designated AJAXPDSSD06 yielded a negative interference for thallium. This sample was analyzed full strength (-302.9) and at a 1:10 dilution (61.4). Both sets of results yielded a negative interference for thallium. The laboratory suspects that this anomaly is likely due to the elevated presence of manganese present in the sample. The results have been reported from a 1:10 dilution.

The serial dilution of the sample designated GRANSTRSD53 yielded a percent recovery marginally below the established control limits. Additionally, the duplicate analysis of this sample yielded %RSDs for several elements outside of the established control limits.

Total Organic Carbon by Lloyd Kahn:

The duplicate analysis of the sample designated GRANSTRSD53 yielded a %RPD of 22%.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page 0001.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

Sincerely,

Michael F. Wheeler, Ph.D.

Oni Coleur, for:

Laboratory Director

0001-B Last Alpha

SEVERN TRENT LABORATORIES, INC. SEVERN

STL Burlington208 South Park Drive, Suite 1
Colchester, VT 05446 Tel 802 655 1203

Sediment

CHAIN OF CUSTODY RECORD

CHAIN OF CUSTODY RECORD

TRENT STL Burlington
208 South Park Drive, Suite 1
SEVERN TRENT LABORATORIES, INC. Colchester, VT 05446 Tel 802 655 1203

Please Fax written changes to (802) 655-1248	,	۱	/O - Plastic or other	· ·	י סטור בי בינטוט הי ריים עשר Slass 1 Liter 250 ml - Glass wide mouth	W - water S - Soil A/G - Amber / Or Glass 1 Liter	*Container VOA - 40 ml vial
STL cannot accept verbal changes.	ge 0 - Oil	SI Sludge	arcoal Tube			Water	
Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.	Client's delivery of samples constitutes acceptance of terms and conditions contained in the Price Schedule.	Time C	Date 1		Time Received by: (Signature	Date	Relinquished by: (Signature)
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(C):			<u> </u>		Address:	Constants	Address: 12011 BU-Red Rd
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STL8234-200 (12/02)

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TRENT 208 South Park Drive, Suite 1 SEVERN TRENT LABORATORIES, INC. Colchester, VT 05446 Tel 802 655 1203 TRENT STL

CHAIN OF CUSTODY RECORD

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Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

AJAXSTPSD04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535363

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 78.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		78.8	Wuai.
IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	407	1	
		07700703	BLKLK0730A	mg/kg	1	127	3840	
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Sample Report Summary

Client Sample No.

AJAXPDSSD06

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535364

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 30.8

	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
	IN623	Solids, Percent	07/29/03	N/A	%	1.0		30.8	
	IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	325	17200	
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Sample Report Summary

Client Sample No.

AJAXSTRSD04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535365

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 78.3

	ethod	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
	N623	Solids, Percent	07/29/03	N/A	%	1.0		78.3	Qual.
1	N847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	1	1	1		
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Sample Report Summary

Client Sample No.

AJAXSTSSD52

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535366

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 11.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		11.5	- Quai.
IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	870	119900	
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Sample Report Summary

Client Sample No.

GRANSTRSD54

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535367

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 83.3

Method	Parameter	Analytical Run Date	Analytical Batch	Unite	DE	DI	Come	0
IN623	Solids, Percent	07/29/03	N/A			NL		Qual.
IN847	TOC by Lloyd Kahn	l l		1 1				
	. oo by Eloya Raini	07/30/03	BLKLKU/30A	mg/Kg	1	121	121	U
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	IN623	iN623 Solids, Percent	iN623 Solids, Percent 07/29/03	IN623 Solids, Percent 07/29/03 N/A	IN623 Solids, Percent 07/29/03 N/A %	IN623 Solids, Percent 07/29/03 N/A % 1.0	IN623 Solids, Percent 07/29/03 N/A % 1.0	IN623 Solids, Percent 07/29/03 N/A % 1.0 83.3

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Sample Report Summary

Client Sample No.

GRANSTPSD54

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535368

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 70.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		70.1	
IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	143	27700	
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Sample Report Summary

Client Sample No.

MAGNSTPSD03

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535369

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 80.6

	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
	IN623	Solids, Percent	07/29/03	N/A	%	1.0		80.6	Guai.
	IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	125	6040	
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Sample Report Summary

Client Sample No.

MAGNPDSSD11

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535370

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 13.6

_	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Cons	0
	IN623	Solids, Percent	07/29/03	N/A	%	1.0	RL	Conc. 13.6	Qual.
	IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg			!	
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Sample Report Summary

Client Sample No.

MAGNSTPSD02

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535371

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 67.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Cons	
IN623	Solids, Percent	07/29/03	N/A	%	1.0	- RL	67.0	Qual.
IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	150	12400	
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Sample Report Summary

Client Sample No.

MAGNSTPSD01

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535372

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 75.8

	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	T p	C	
	IN623	Solids, Percent	07/29/03	N/A	%	1.0	RL	75.8	Qual.
	IN847	TOC by Lloyd Kahn				ļ			
		100 by Lloyd Kallii	07/30/03	BLKLK0730A	mg/Kg	1	132	5130	
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Sample Report Summary

Client Sample No.

GRANSTPSD53

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535373

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 78.6

Method	Parameter	Analytical Run Date	Analytical Batch	Unite	DE	Pi	Com-	
IN623	Solids, Percent	07/29/03				NL		Qual.
IN847	TOC by Lloyd Kahn	07/30/03		j l		128	ľ	
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	IN623	IN623 Solids, Percent	Solids, Percent 07/29/03	IN623 Solids, Percent 07/29/03 N/A	IN623 Solids, Percent 07/29/03 N/A %	IN623 Solids, Percent 07/29/03 N/A % 1.0	IN623 Solids, Percent 07/29/03 N/A % 1.0	IN623 Solids, Percent 07/29/03 N/A % 1.0 78.6

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Sample Report Summary

Client Sample No.

GRANSTRSD53

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535374

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 80.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		80.4	- Guai.
IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	1	125	6750	
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Sample Report Summary

Client Sample No.

BLUESTPSD05

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535813

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/24/03

% Solids: 82.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		82.2	Quai
IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	1	122	3530	
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Sample Report Summary

Client Sample No.

BLUESTPSD05100

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535814

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/24/03

% Solids: 74.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		74.7	- Wudi.
IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	1	134	4760	
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Sample Report Summary

Client Sample No.

BLUESTPSD06

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535815

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/24/03

% Solids: 80.9

	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
	IN623	Solids, Percent	07/29/03	N/A	%	1.0	\\\ <u>\</u>	80.9	Quai.
	IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	1	124	124	
1	:	• • • • • • • • • • • • • • • • • • • •		DENEROTZOA	mg/Ag	•	124	124	U
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Sample Report Summary

Client Sample No.

BLUESTRSD08

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535816

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/24/03

% Solids: 84.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	07/29/03	N/A	%	1.0		84.0	
IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	1	120	26400	
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Sample Report Summary

Client Sample No.

BLUESTPSD08

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535817

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/24/03

% Solids: 80.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0	'`_	80.4	
IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	1	125	7820	
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Sample Report Summary

Client Sample No.

BLUESTPSD07

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535818

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/24/03

% Solids: 70.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		70.2	GGG.
IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	1	143	22400	
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Method Blank Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Conc.	Units	Qual.	DF	RL	Analytical Run Date	Analytical Batch
BLKLK0728A	IN847	TOC by Lloyd Kahn	100	mg/Kg	υ	1	100	07/28/03	BLKLK0728A
BLKLK0730A	IN847	TOC by Lloyd Kahn	100	mg/Kg	U	1	100	07/30/03	BLKLK0730A
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Matrix Spike Sample Report Summary

CRANSTROPS AND

GRANSTPSD53MS

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535373MS

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method Parameter Analytical Run Date Analytical Batch Result Conc. Qual. Result Conc. Qual. Spike Added INB47 TOC by Lloyd Kahn 07/30/03 BLKLK0730A mg/Kg 125800 2670 110501.00	%	Spike	ple ult	Sam Res	Spike ult Oual	Matrix S	Unite	Analytical Batch	Analytical Run Date	Parameter	Method
	111.4	110501 00	Quai.	2670	Quai.	125800	mg/Kg				
	111.4	110301.00		2070							1
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* Control Limit for Percent Recovery is 75-125%, unless otherwise specified.

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Duplicate Sample Report Summary

Client Sample No.

GRANSTPSD53REP

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535373DP

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/22/03

% Solids: 81.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Sam Res Conc.	ult	Sample	icate Result	RPD*	.
IN623	Solids, Percent	07/29/03	N/A	%	78.6	- Guai.	81.7	Quai.	4	1
IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	2670		2140		22	
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^{*} Control Limit for RPD is +/- 20%, unless otherwise specified.

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Laboratory Control Sample Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD002

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCS Conc.	True Value	% Recovery
LCSLK0728A	IN847	TOC by Lloyd Kahn	07/28/03	BLKLK0728A	mg/Kg	8360	8500.0000	
LCSLK0730A	IN847	TOC by Lloyd Kahn	07/30/03	BLKLK0730A	mg/Kg	8510	8500.0000	1
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.

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Sample Data Summary Package For Metals

USEPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Na	me:	STL B	URLINGTON	Contract: 23046		
Lab Co	de:	STLVT	Case No.: 23046	SAS No.:	SDG No.:GCD002	
SOW No		ILM04	1			
SOW NO	'•• .	111104				
			EPA Sample No.	Lab Sample ID.		
			AJAXPDSSD06	535364	· · · · · · · · · · · · · · · · · · ·	
			AJAXSTPSD04	535363	-	
			AJAXSTRSD04	535365		
			AJAXSTSSD52	535366		
			BLUESTPSD05	535813	•	
			BLUESTPSD05100	535814		
			BLUESTPSD06	535815	 	
			BLUESTPSD07	535818		
			BLUESTPSD08	535817		
			BLUESTRSD08	535816		
			GRANSTPSD53	535373		
			GRANSTPSD53D	535373DP		
			GRANSTPSD53S	535373MS		
			GRANSTPSD54	535368	•	
			GRANSTRSD53	535374	· · · · · · · · · · · · · · · · · · ·	
			GRANSTRSD54	535367		
			MAGNPDSSD11	535370		
			MAGNSTPSD01	535372		
			MAGNSTPSD02	535371		
			MAGNSTPSD03	535369		
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Signat	ture	:		Name:		
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USEPA - CLP

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXPDSSD06	

Lab Name:	STL BURLING	GTON		Contract:	23046		
Lab Code:	STLVT	Case No.: 2	3046	SAS No.		SDG No.:	GCD002
Matrix (so	il/water):	SOIL		Lal	Sample ID:	535364	·
Level (low	/med): LO	W		Dat	ce Received:	7/22/2003	

% Solids: 30.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	5190		*	P
7440-36-0	Antimony	5.2	В	И	P
7440-38-2	Arsenic	1020			P
7440-39-3	Barium	309	Ī	*	P
7440-41-7	Beryllium	1.5	1		P
7440-43-9	Cadmium	9.3	1	1	P
7440-70-2	Calcium	33300	Ī	*	P
7440-47-3	Chromium	4.4		*	P
7440-48-4	Cobalt	254		1	P
7440-50-8	Copper	316		*	P
7439-89-6	Iron	319000	1	*	P
7439-92-1	Lead	27.9	T	*	P
7439-95-4	Magnesium	3530		*	P
7439-96-5	Manganese	40600	Ī		P
7439-97-6	Mercury	0.76		*	CV
7440-02-0	Nickel	860	Ī	1	P
7440-09-7	Potassium	892	В	E*	P
7782-49-2	Selenium	11.6			P
7440-22-4	Silver	0.60	מ		P
7440-23-5	Sodium	129	ען		P
7440-28-0	Thallium	15.6	ט		P
7440-62-2	Vanadium	17.8		*	P
7440-66-6	Zinc	1660		*	P
57-12-5	Cyanide	2.9	1		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXSTPSD04	

Lab Name:	STL BURLINGTON		Contract:	23046		
Lab Code:	STLVT Ca	se No.: 2	23046 SAS No	.:	SDG No.:	GCD002
Matrix (so	il/water): SOII		L	ab Sample ID:	535363	
Level (low,	med): LOW		D	ate Received:	7/22/2003	

% Solids: 78.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	δ	М
7429-90-5	Aluminum	10300		*	P
7440-36-0	Antimony	3.4	В	N	P
7440-38-2	Arsenic	326	Ī		P
7440-39-3	Barium	233		*	P
7440-41-7	Beryllium	0.71	1		P
7440-43-9	Cadmium	1.2			P
7440-70-2	Calcium	7350		*	P
7440-47-3	Chromium	19.5		*	P
7440-48-4	Cobalt	18.1	1		P
7440-50-8	Copper	80.4		*	P
7439-89-6	Iron	36500		*	P
7439-92-1	Lead	69.4		*	P
7439-95-4	Magnesium	5360		*	P
7439-96-5	Manganese	2570			P
7439-97-6	Mercury	0.51		*	CV
7440-02-0	Nickel	43.8			P
7440-09-7	Potassium	2560		E*	P
7782-49-2	Selenium	1.3			P
7440-22-4	Silver	2.2			P
7440-23-5	Sodium	287	В		P
7440-28-0	Thallium	0.65	טן	1	P
7440-62-2	Vanadium	39.4	Ī	*	P
7440-66-6	Zinc	180	1	*	P
57-12-5	Cyanide	0.48	ΙŪ	1	AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXSTRSD04	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535365
Level (low/med): LOW	Date Received:	7/22/2003

% Solids: 78.3

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	9950		*	P
7440-36-0	Antimony	1.5	В	N	P
7440-38-2	Arsenic	631			P
7440-39-3	Barium	263		*	P
7440-41-7	Beryllium	0.76			P
7440-43-9	Cadmium	0.58	1		P
7440-70-2	Calcium	13800		*	P
7440-47-3	Chromium	18.5		*	P
7440-48-4	Cobalt	18.0			P
7440-50-8	Copper	36.9		 *	P
7439-89-6	Iron	44500		*	P
7439-92-1	Lead	26.3		*	P
7439-95-4	Magnesium	8630		*	P
7439-96-5	Manganese	2600			P
7439-97-6	Mercury	0.42		*	CV
7440-02-0	Nickel	29.6			P
7440-09-7	Potassium	2830		E*	P
7782-49-2	Selenium	0.85			P
7440-22-4	Silver	1.3			P
7440-23-5	Sodium	132	B		P
7440-28-0	Thallium	0.62	ט		P
7440-62-2	Vanadium	50.0		*	P
7440-66-6	Zinc	120		*	P
57-12-5	Cyanide	0.59	טן		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments: _					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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	PSXALA	SSD52	

Lab Name:	STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Ca	e No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (so	il/water): SOIL		Lab Sample ID:	535366
Level (low,	med): LOW	<u> </u>	Date Received:	7/22/2003

% Solids: 11.5

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	16800		*	P
7440-36-0	Antimony	12.2	B	N	P
7440-38-2	Arsenic	2800	T		P
7440-39-3	Barium	268	1	 *	P
7440-41-7	Beryllium	0.96	В		P
7440-43-9	Cadmium	5.3		1	P
7440-70-2	Calcium	16500		*	P
7440-47-3	Chromium	21.0		 *	P
7440-48-4	Cobalt	28.3	В	Ī	P
7440-50-8	Copper	105		*	P
7439-89-6	Iron	134000	1	*	P
7439-92-1	Lead	42.5		*	P
7439-95-4	Magnesium	5490		*	P
7439-96-5	Manganese	3480			P
7439-97-6	Mercury	1.0		*	cv
7440-02-0	Nickel	161			P
7440-09-7	Potassium	3250	В	E*	P
7782-49-2	Selenium	6.9	T		P
7440-22-4	Silver	2.6	В		P
7440-23-5	Sodium	599	В		P
7440-28-0	Thallium	4.0	U		P
7440-62-2	Vanadium	57.3		*	P
7440-66-6	Zinc	705		*	P
57-12-5	Cyanide	4.0	טן		AS

Color Befor	re: brown	Clarity Bef	fore:		Texture:	medium
Color After	e: yellow	Clarity Aft	cer: cl	.ear	Artifacts:	
Comments:	-					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUE	STPSD05	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (so	il/water): SOIL	Lab Sample ID:	535813
Level (low,	/med): LOW	Date Received:	7/24/2003

% Solids: 82.2

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	14900			P
7440-36-0	Antimony	1.2	B	И	P
7440-38-2	Arsenic	19.4	Π	1	P
7440-39-3	Barium	73.1	1	 *	P
7440-41-7	Beryllium	0.36	В	1	P
7440-43-9	Cadmium	0.059	U	1	P
7440-70-2	Calcium	4180		*	P
7440-47-3	Chromium	86.1		*	P
7440-48-4	Cobalt	20.7	Ī	l	P
7440-50-8	Copper	28.8		*	P
7439-89-6	Iron	28100		*	P
7439-92-1	Lead	3.6		*	P
7439-95-4	Magnesium	11500		*	P
7439-96-5	Manganese	665		l	P
7439-97-6	Mercury	0.38	T.	*	CV
7440-02-0	Nickel	111	Τ	1	P
7440-09-7	Potassium	808		E*	P
7782-49-2	Selenium	0.52	Ī		P
7440-22-4	Silver	0.22	טן		P
7440-23-5	Sodium	226	В		P
7440-28-0	Thallium	0.93	В		P
7440-62-2	Vanadium	52.2		*	P
7440-66-6	Zinc	56.2			P
57-12-5	Cyanide	0.52	U		AS

Color Before:	brown	Clarity Before:		Texture:	coarse
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLU	ESTPSD05100	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 2304	6 SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535814
Level (low/med): LOW	Date Received:	7/24/2003
% Solids: 74.7		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	14200			P
7440-36-0	Antimony	1.2	В	И	P
7440-38-2	Arsenic	22.7	1		P
7440-39-3	Barium	73.4		*	P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	0.059	טן		P
7440-70-2	Calcium	2710		*	P
7440-47-3	Chromium	101		*	P
7440-48-4	Cobalt	15.9			P
7440-50-8	Copper	36.5		*	P
7439-89-6	Iron	28500		*	P
7439-92-1	Lead	4.9		*	P
7439-95-4	Magnesium	11200		*	P
7439-96-5	Manganese	531		1	P
7439-97-6	Mercury	0.13		*	cv
7440-02-0	Nickel	107			P
7440-09-7	Potassium	949		E*	P
7782-49-2	Selenium	0.49	T		P
7440-22-4	Silver	0.22	מן		P
7440-23-5	Sodium	254	В	1	P
7440-28-0	Thallium	0.84	В		P
7440-62-2	Vanadium	49.3		 *	P
7440-66-6	Zinc	62.4			P
57-12-5	Cyanide	0.50	טן		AS

Color Before:	brown	Clarity B	Before:	444	Texture:	coarse
Color After:	yellow	Clarity A	After:	clear	Artifacts:	
Comments:						
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUI	STPSD	06	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535815
Level (low/med): LOW	Date Received:	7/24/2003

% Solids: 80.9

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	7730			P
7440-36-0	Antimony	0.52	U	N	P
7440-38-2	Arsenic	7.4	Ī	l	P
7440-39-3	Barium	71.5		*	P
7440-41-7	Beryllium	0.19	В		P
7440-43-9	Cadmium	0.077	В	1	P
7440-70-2	Calcium	2980		*	P
7440-47-3	Chromium	20.4		*	P
7440-48-4	Cobalt	14.9			P
7440-50-8	Copper	40.6	1	 *	P
7439-89-6	Iron	10000	1	*	P
7439-92-1	Lead	2.0	T	*	P
7439-95-4	Magnesium	2690		*	P
7439-96-5	Manganese	786	1	1	P
7439-97-6	Mercury	0.075	1	*	cv
7440-02-0	Nickel	92.0	1		P
7440-09-7	Potassium	350	В	E*	P
7782-49-2	Selenium	0.44	В	I	P
7440-22-4	Silver	0.24	ע		P
7440-23-5	Sodium	337	В	1	P
7440-28-0	Thallium	0.63	ען		P
7440-62-2	Vanadium	16.4		*	P
7440-66-6	Zinc	28.8			P
57-12-5	Cyanide	0.61	ש		AS

Color Before:	brown	Clarity	Before:		Texture:	coarse
Color After:	yellow	Clarity	After:	clear	Artifacts:	
Comments:						
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
BLUESTPSD07

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (so	il/water): SOIL	Lab Sample ID:	535818
Level (low	/med): LOW	Date Received:	7/24/2003
% Solids:	70.2		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	11800			P
7440-36-0	Antimony	1.0	B	N	P
7440-38-2	Arsenic	31.0			P
7440-39-3	Barium	82.3		*	P
7440-41-7	Beryllium	0.32	В		P
7440-43-9	Cadmium	0.12	В		P
7440-70-2	Calcium	3350		*	P
7440-47-3	Chromium	55.6		*	P
7440-48-4	Cobalt	14.6			P
7440-50-8	Copper	26.8		*	P
7439-89-6	Iron	20000		*	P
7439-92-1	Lead	3.1		*	P
7439-95-4	Magnesium	6500	1	*	P
7439-96-5	Manganese	571	Ī		P
7439-97-6	Mercury	0.10		*	CV
7440-02-0	Nickel	82.7		ł	P
7440-09-7	Potassium	1310		E*	P
7782-49-2	Selenium	0.69			P
7440-22-4	Silver	0.33	ļΒ		P
7440-23-5	Sodium	364	В		P
7440-28-0	Thallium	0.62	U		P
7440-62-2	Vanadium	35.1		*	P
7440-66-6	Zinc	56.6			P
57-12-5	Cyanide	0.69	U	1	AS

Color Before:	brown	Clarity Before:		Texture:	coarse
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:				·	
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
BLUESTPSD08

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535817
Level (low/med): LOW	Date Received:	7/24/2003
% Solids: 80.4		

% Solids: 80.4

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	4750		İ	P
7440-36-0	Antimony	0.96	B	N	P
7440-38-2	Arsenic	15.3]	P
7440-39-3	Barium	60.6		 *	P
7440-41-7	Beryllium	0.39	В		P
7440-43-9	Cadmium	0.060	U		P
7440-70-2	Calcium	1070	1	*	P
7440-47-3	Chromium	78.0	Ī	*	P
7440-48-4	Cobalt	24.9			P
7440-50-8	Copper	51.3		*	P
7439-89-6	Iron	57900	Ī	*	P
7439-92-1	Lead	5.4	Ī	*	P
7439-95-4	Magnesium	11100	1	*	P
7439-96-5	Manganese	733	1		P
7439-97-6	Mercury	0.085		*	cv
7440-02-0	Nickel	160	T]	P
7440-09-7	Potassium	530	1	E*	P
7782-49-2	Selenium	1.0			P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	62.3	B		P
7440-28-0	Thallium	2.2			P
7440-62-2	Vanadium	57.1		*	P
7440-66-6	Zinc	56.6		1	P
57-12-5	Cyanide	0.56	U		AS

Color Before:	brown	Clarity Before:		Texture:	coarse
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
BLUESTRSD08

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (so	il/water): SOIL	Lab Sample ID:	535816
Level (low	/med): LOW	Date Received:	7/24/2003
	04.0		

% Solids: 84.0

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	12600			P
7440-36-0	Antimony	0.47	טן	N	P
7440-38-2	Arsenic	3.9	1	<u> </u>	P
7440-39-3	Barium	64.2		*	P
7440-41-7	Beryllium	0.11	B		P
7440-43-9	Cadmium	0.060	ען		P
7440-70-2	Calcium	5890		*	P
7440-47-3	Chromium	10.7		*	P
7440-48-4	Cobalt	9.5			P
7440-50-8	Copper	54.1	1	 *	P
7439-89-6	Iron	14000		*	P
7439-92-1	Lead	1.3		*	P
7439-95-4	Magnesium	4610		*	P
7439-96-5	Manganese	527			P
7439-97-6	Mercury	0.056		*	CV
7440-02-0	Nickel	51.9	T		P
7440-09-7	Potassium	1110	1	E*	P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.22	ט		P
7440-23-5	Sodium	1040			P
7440-28-0	Thallium	0.58	U		P
7440-62-2	Vanadium	10.6		*	P
7440-66-6	Zinc	59.1			P
57-12-5	Cyanide	0.56	U		AS

Color Before	brown	Clarity Before:		Texture:	coarse
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANS	TPSD53	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535373
Level (low/med): LOW	Date Received:	7/22/2003
9 Solide: 78 6		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	10200		 *	P
7440-36-0	Antimony	2.0	B	N	P
7440-38-2	Arsenic	130]		P
7440-39-3	Barium	139		*	P
7440-41-7	Beryllium	0.24	В		P
7440-43-9	Cadmium	0.96			P
7440-70-2	Calcium	2180		 *	P
7440-47-3	Chromium	10.4		*	P
7440-48-4	Cobalt	6.9			P
7440-50-8	Copper	18.1	1	*	P
7439-89-6	Iron	21600	1	*	P
7439-92-1	Lead	38.2		*	P
7439-95-4	Magnesium	4790		*	P
7439-96-5	Manganese	364		1	P
7439-97-6	Mercury	0.11		 *	CV
7440-02-0	Nickel	6.2			P
7440-09-7	Potassium	2840		E*	P
7782-49-2	Selenium	0.44	В		P
7440-22-4	Silver	1.8			P
7440-23-5	Sodium	45.2	שן		P
7440-28-0	Thallium	0.69	В		P
7440-62-2	Vanadium	52.1		 *	P
7440-66-6	Zinc	150		*	P
57-12-5	Cyanide	0.57	ט		AS

Color Before: brown	Clarity Before:		Texture:	medium
Color After: yellow	Clarity After:	clear	Artifacts:	
Comments:	MINNEY CO.		····	
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. GRANSTPSD54

Lab Name: STL BURL	INGTON	Contract: 23046	
Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water)	: SOIL	Lab Sample ID:	535368
Level (low/med):	LOW	Date Received:	7/22/2003
% Solids: 70.1			

Concentration Units (ug/L or mg/kg dry weight): $\underline{\text{MG/KG}}$

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	8910		*	P
7440-36-0	Antimony	5.1	В	и	P
7440-38-2	Arsenic	303]	P
7440-39-3	Barium	144		*	P
7440-41-7	Beryllium	0.26	В		P
7440-43-9	Cadmium	2.8	1		P
7440-70-2	Calcium	2740		*	P
7440-47-3	Chromium	10.9		*	P
7440-48-4	Cobalt	6.5			P
7440-50-8	Copper	28.0		*	P
7439-89-6	Iron	18900		*	P
7439-92-1	Lead	148		*	P
7439-95-4	Magnesium	3460		*	P
7439-96-5	Manganese	611			P
7439-97-6	Mercury	0.32		*	CV
7440-02-0	Nickel	7.6			P
7440-09-7	Potassium	2400	1	E*	P
7782-49-2	Selenium	0.80			P
7440-22-4	Silver	7.9			P
7440-23-5	Sodium	70.2	В		P
7440-28-0	Thallium	0.67	U		P
7440-62-2	Vanadium	43.0		*	P
7440-66-6	Zinc	186		*	P
57-12-5	Cyanide	0.59	U		AS

Color Befo	re: brown	Clarity Before:		Texture:	medium
Color Afte	r: yellow	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANSTRSD	53	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535374
Level (low/med): LOW	Date Received:	7/22/2003
% Colida: 90 A		

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	9670		*	P
7440-36-0	Antimony	2.3	B	N	P
7440-38-2	Arsenic	126		<u> </u>	P
7440-39-3	Barium	127		*	P
7440-41-7	Beryllium	0.25	В		P
7440-43-9	Cadmium	1.2	1		P
7440-70-2	Calcium	2230		*	P
7440-47-3	Chromium	9.9		*	P
7440-48-4	Cobalt	6.2			P
7440-50-8	Copper	18.6	1	*	P
7439-89-6	Iron	19000		*	P
7439-92-1	Lead	44.3		*	P
7439-95-4	Magnesium	4030	1	*	P
7439-96-5	Manganese	360		}	P
7439-97-6	Mercury	0.12		*	CV
7440-02-0	Nickel	6.5			P
7440-09-7	Potassium	2550	1	E*	P
7782-49-2	Selenium	0.42	B		P
7440-22-4	Silver	4.9	1	1	P
7440-23-5	Sodium	45.9	טן		P
7440-28-0	Thallium	0.73	В	1	P
7440-62-2	Vanadium	45.9		*	P
7440-66-6	Zinc	148		*	P
57-12-5	Cyanide	0.60	U		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	<u>yellow</u>	Clarity After:	clear	Artifacts:	
Comments:					
: : :					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANSTRSD54	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (so	il/water): SOIL	Lab Sample ID:	535367
Level (low,	/med): LOW	Date Received:	7/22/2003

% Solids: 83.3

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	7770		*	P
7440-36-0	Antimony	5.1	В	И	P
7440-38-2	Arsenic	246	1		P
7440-39-3	Barium	126		*	P
7440-41-7	Beryllium	0.21	В		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	1750	1	*	P
7440-47-3	Chromium	8.3	1	 *	P
7440-48-4	Cobalt	6.4	T		P
7440-50-8	Copper	30.0	Ī	*	P
7439-89-6	Iron	18300	1	*	P
7439-92-1	Lead	121		*	P
7439-95-4	Magnesium	3380		*	P
7439-96-5	Manganese	560			P
7439-97-6	Mercury	0.12		*	cv
7440-02-0	Nickel	7.3	1	1	P
7440-09-7	Potassium	2340		E*	P
7782-49-2	Selenium	0.63			P
7440-22-4	Silver	6.3		1	P
7440-23-5	Sodium	79.5	В		P
7440-28-0	Thallium	0.76	В		P
7440-62-2	Vanadium	38.3		*	P
7440-66-6	Zinc	151		*	P
57-12-5	Cyanide	0.57	U		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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	MAGNPI	DSSD11	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535370
Level (low/med): LOW	Date Received:	7/22/2003
% Solids: 13.6		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	46500		*	P
7440~36-0	Antimony	6.5	В	N	P
7440-38-2	Arsenic	2190		Ī	P
7440-39-3	Barium	200		*	P
7440-41-7	Beryllium	3.8	.		P
7440-43-9	Cadmium	3.6	1		P
7440-70-2	Calcium	11000		 *	P
7440-47-3	Chromium	54.9	1	*	P
7440-48-4	Cobalt	54.9			P
7440-50-8	Copper	461	1	*	P
7439-89-6	Iron	136000		*	P
7439-92-1	Lead	23.2	1	*	P
7439-95-4	Magnesium	7110		*	P
7439-96-5	Manganese	2750		1	P
7439-97-6	Mercury	1.2		*	CV
7440-02-0	Nickel	159			P
7440-09-7	Potassium	5430	1	E*	P
7782-49-2	Selenium	2.6	В]	P
7440-22-4	Silver	2.3	В		P
7440-23-5	Sodium	263	מן	1	P
7440-28-0	Thallium	5.5	В	1	P
7440-62-2	Vanadium	90.2		*	P
7440-66-6	Zinc	515		*	P
57-12-5	Cyanide	3.3	U		AS

Color	Before:	brown	Clarity Before:		Texture:	medium
Color	After:	<u>yellow</u>	Clarity After:	clear	Artifacts:	
Commer	nts:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTP	SD01	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (so	il/water): SOIL	Lab Sample ID:	535372
Level (low,	med): LOW	Date Received:	7/22/2003

% Solids: 75.8

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	14900	1	*	P
7440-36-0	Antimony	0.46	U	N	P
7440-38-2	Arsenic	1.3			P
7440-39-3	Barium	502		 *	P
7440-41-7	Beryllium	0.44	В]	P
7440-43-9	Cadmium	0.059	U		P
7440-70-2	Calcium	5500		*	P
7440-47-3	Chromium	14.9		*	P
7440-48-4	Cobalt	9.6		1	P
7440-50-8	Copper	14.3		*	P
7439-89-6	Iron	20700		*	P
7439-92-1	Lead	3.8		*	P
7439-95-4	Magnesium	3910		*	P
7439-96-5	Manganese	424			P
7439-97-6	Mercury	0.020	В	*	cv
7440-02-0	Nickel	24.3			P
7440-09-7	Potassium	394	В	E*	P
7782-49-2	Selenium	0.48	В	1	P
7440-22-4	Silver	0.21	U	<u>l</u>	P
7440-23-5	Sodium	764			P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	34.2	Π	*	P
7440-66-6	Zinc	21.8		*	P
57-12-5	Cyanide	0.64	ן ט	1	AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPSD02	
MAGNSTFSDVZ	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535371
Level (low/med): LOW	Date Received:	7/22/2003

% Solids: 67.0

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	1550		*	P
7440-36-0	Antimony	2.6	В	и	P
7440-38-2	Arsenic	121	1		P
7440-39-3	Barium	40.2		*	P
7440-41-7	Beryllium	0.65			P
7440-43-9	Cadmium	0.16	В		P
7440-70-2	Calcium	923		*	P
7440-47-3	Chromium	51.7	1	*	P
7440-48-4	Cobalt	3.1	В	ļ	P
7440-50-8	Copper	36.1		*	P
7439-89-6	Iron	23200	1	*	P
7439-92-1	Lead	4.6		 *	P
7439-95-4	Magnesium	1010		*	P
7439-96-5	Manganese	319		1	P
7439-97-6	Mercury	1.4	1	*	CV
7440-02-0	Nickel	6.6		1	P
7440-09-7	Potassium	848		E*	P
7782-49-2	Selenium	0.45	В		P
7440-22-4	Silver	3.6	Ī		P
7440-23-5	Sodium	74.8	B		P
7440-28-0	Thallium	0.99	В]	P
7440-62-2	Vanadium	62.2		*	P
7440-66-6	Zinc	50.3		*	P
57-12-5	Cyanide	0.70	U		AS

Color Before:	. brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPSDO	3

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Matrix (soil/water): SOIL	Lab Sample ID:	535369
Level (low/med): LOW	Date Received:	7/22/2003

% Solids: 80.6

CAS No.	Analyte ···	Concentration	С	Ω	М
7429-90-5	Aluminum	4750	+	*	P
7440-36-0	Antimony	5.1	В	N	P
7440-38-2	Arsenic	742	1		P
7440-39-3	Barium	188	1	*	P
7440-41-7	Beryllium	0.42	В		P
7440-43-9	Cadmium	0.74			P
7440-70-2	Calcium	2000		*	P
7440-47-3	Chromium	11.6	1	*	P
7440-48-4	Cobalt	59.5		1	P
7440-50-8	Copper	32.8		*	P
7439-89-6	Iron	42100		*	P
7439-92-1	Lead	54.1		*	P
7439-95-4	Magnesium	1060		*	P
7439-96-5	Manganese	1920			P
7439-97-6	Mercury	1.1		*	cv
7440-02-0	Nickel	131		ļ	P
7440-09-7	Potassium	1300	1	E*	P
7782-49-2	Selenium	1.6	Π		P
7440-22-4	Silver	1.2			P
7440-23-5	Sodium	65.3	В		P
7440-28-0	Thallium	0.84	В		P
7440-62-2	Vanadium	29.4		 *	P
7440-66-6	Zinc	140		*	P
57-12-5	Cyanide	0.55	ט	1	AS

Color Befor	re: brown	Clarity Before:		Texture:	medium
Color Afte	r: <u>yellow</u>	Clarity After:	clear	Artifacts:	
Comments:			t de l'acceptance de l'accepta		

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Case No.:	23046	SAS No.:	SDG No.: GCD002
Initial Ca	libration Source: Inorg	anic Ventu	res/Fisher	
Continuing	Calibration Source: SI	EX/Fisher		
			1 1 1 TT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Concentration Units: ug/L

Initial Calibration			Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Cyanide	120.0	113.99 95.0	150.0	144.40	96.3	149.3	88 99.	6 AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.:	23046 SAS No.:	SDG No.: GCD002
Initial Ca	Libration Source: Inorg	anic Ventures/Fisher	
Continuing	Calibration Source: SI	EX/Fisher	
		Concentration Units: ug/L	

	Initial	. Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Cyanide			150.0	153.09	102.1	151.	26 100.8	3 AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	\$TL BURLINGTON		Contract:	23046	
Lab Code:	STLVT Case	No.: 230	046 SAS No.	:	SDG No.: GCD002
Initial Ca	libration Source:	Inorganic	Ventures/Fisher		
Continuing	Calibration Source	e: SPEX/F	risher		
	!				

Concentration Units: ug/L

Initial Calibration			Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Mercury	3.0	2.82 94.0	5.0	4.90	98.0	4.7	1 94.2	CV

USEPA-CLP

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BUI	RLINGTON	Contract: 23046						
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG	No.: GC	:D002	
		ion Source: Inorga							
-		-	Concen'	tration Units	: ug/L				
		Initial Cali	bration		Continuing	Calibra	ation		
Analyte		True	Found %R((1) True	Found	%R(1)	Found	%R(1)	М

Mercury

5.0

4.61 92.2

5.15 103.0 CV

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BURLINGTON	Contract: 23046	
Lab Code:	\$TLVT Case No.: 2	3046 SAS No.:	SDG No.: GCD002
Initial Ca	libration Source: Inorgani	c Ventures/Fisher	
Continuing	Calibration Source: SPEX/	/Fisher	

Concentration Units: ug/L

	Initial C	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Mercury	3.0	2.72 90.7	5.0	4.85	97.0	4.40	89.2	CV

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	\$TL BURLING	TON		Contract: 23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCD002
Initial Ca	libration So	ource: <u>Inorga</u>	nic Vent	ures/Fisher	
Continuing	Calibration	n Source: SPE	X/Fisher		

Concentration Units: ug/L

Initial Calibration			Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Lead	1000.0	998.00 99.8	400.0	405.60	101.4	408.4	10 102.1	Р
Selenium	250.0	243.60 97.4	100.0	102.30	102.3	101.7	70 101.7	P

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	TL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Case	No.: 23046	SAS No.:	SDG No.: GCD002
Initial Cal	ibration Source:	Inorganic Ven	tures/Fisher	
Continuing	Calibration Source	e: SPEX/Fishe	r	

Concentration Units: ug/L

-	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Lead			400.0	410.80	102.7	406.2	0 101.6	P
Selenium	İ		100.0	102.50	102.5	101.8	0 101.8	P

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name:	\$TL BURLINGTO	N		(Contract:	23046		
Lab	Code:	STLVT	Case	No.:	23046	SAS No.	:	SDG No.:	GCD002

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

:	Initial	Calibratio	ion Continuing Calibration						
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum	26000.0	26240.00	100.9	30200.0	29780.00	98.6	30030.00	99.4	P
Antimony	250.0	245.80	98.3	300.0	296.90	99.0	293.40	97.8	P
Arsenic	250.0	246.80	98.7	100.0	97.74	97.7	99.90	99.9	P
Barium	 500.0	492.40	98.5	200.0	195.90	98.0	197.50	98.8	P
Beryllium	500.0	495.00	99.0	100.0	97.16	97.2	97.22	97.2	P
Cadmium	500.0	486.00	97.2	100.0	96.41	96.4	96.04	96.0	P
Calcium	25000.0	25340.00	101.4	30200.0	29970.00	99.2	29790.00	98.6	Р
Chromium	500.0	492.60	98.5	200.0	191.50	95.8	192.20	96.1	P
Cobalt	500.0	487.10	97.4	200.0	194.40	97.2	194.20	97.1	Р
Copper	500.0	497.50	99.5	200.0	197.90	99.0	198.00	99.0	P
Iron	25500.0	26090.00	102.3	30200.0	29840.00	98.8	29960.00	99.2	P
Lead	1000.0	983.60	98.4	400.0	387.70	96.9	387.00	96.8	Р
Magnesium	25000.0	25190.00	100.8	30200.0	29640.00	98.1	29510.00	97.7	Р
Manganese	500.0	488.40	97.7	200.0	194.20	97.1	193.40	96.7	P
Nickel	500.0	490.40	98.1	200.0	193.80	96.9	193.60	96.8	Р
Potassium	25000.0	26530.00	106.1	30200.0	30820.00	102.1	31040.00	102.8	Р
Silver	500.0	496.40	99.3	100.0	98.14	98.1	99.89	99.9	P
Sodium	25000.0	25230.00	100.9	30200.0	28980.00	96.0	29570.00	97.9	P
Thallium	250.0	237.90	95.2	100.0	97.51	97.5	98.66	98.7	P
Vanadium	500.0	490.80	98.2	200.0	196.30	98.2	195.70	97.8	P
Zinc	500.0	494.00	98.8	200.0	196.40	98.2	195.90	98.0	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BURLINGTON						
Lab Code:	STLVT Case	No.: 23046	SAS No.:	SDG No.: GCD002			
Initial Calibration Source: Inorganic Ventures/Fisher							
Continuing Calibration Source: SPEX/Fisher							

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	29900.00	99.0	29890.00	99.0	Р
Antimony				300.0	294.20	98.1	295.00	98.3	P
Arsenic				100.0	99.42	99.4	98.17	98.2	P
Barium				200.0	196.10	98.0	196.20	98.1	P
Beryllium				100.0	97.65	97.6	96.94	96.9	P
Cadmium				100.0	96.42	96.4	96.02	96.0	Р
Calcium				30200.0	29820.00	98.7	29690.00	98.3	P
Chromium	1			200.0	191.50	95.8	191.10	95.6	P
Cobalt				200.0	194.10	97.0	193.50	96.8	P
Copper				200.0	197.80	98.9	197.10	98.6	P
Iron				30200.0	29950.00	99.2	29890.00	99.0	P
Lead				400.0	384.70	96.2	388.00	97.0	P
Magnesium				30200.0	29630.00	98.1	29460.00	97.5	₽
Manganese				200.0	192.70	96.4	192.20	96.1	P
Nickel				200.0	194.20	97.1	193.20	96.6	P
Potassium				30200.0	30980.00	102.6	31020.00	102.7	P.
Silver				100.0	100.20	100.2	98.84	98.8	P
Sodium	1			30200.0	29470.00	97.6	29370.00	97.3	P
Thallium				100.0	98.29	98.3	94.41	94.4	P
Vanadium				200.0	195.90	98.0	195.00	97.5	Р
Zinc				200.0	197.40	98.7	196.00	98.0	Р

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLINGTON	Contract: 2304	16
Lab Code:	\$TLVT Case	No.: 23046 SAS No.:	SDG No.: GCD002
Initial Ca	alibration Source: l	norganic Ventures/Fisher	
Continuin	g Calibration Source	e: SPEX/Fisher	

Concentration Units: ug/L

	Initial C	alibrati	on	(Continuing	Calibra	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	30000.00	99.3			P
Antimony			I	300.0	294.50	98.2			P
Arsenic	1			100.0	96.36	96.4			P
Barium				200.0	197.10	98.6			P
Beryllium				100.0	96.41	96.4			P
Cadmium				100.0	95.62	95.6			P
Calcium	1			30200.0	29750.00	98.5			P
Chromium				200.0	190.80	95.4			P
Cobalt				200.0	193.00	96.5			P
Copper		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1	200.0	198.40	99.2			P
Iron				30200.0	29790.00	98.6			P
Lead				400.0	382.80	95.7			P
Magnesium				30200.0	29340.00	97.2			P
Manganese	1			200.0	191.80	95.9			P
Nickel				200.0	191.30	95.6			P
Potassium			1	30200.0	31180.00	103.2	- M- M-2-		P
Silver				100.0	98.79	98.8			P
Sodium			1	30200.0	29310.00	97.1			P
Thallium	I			100.0	101.00	101.0			P
Vanadium			1	200.0	194.10	97.0			P
Zinc				200.0	195.90	98.0			P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	TL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Case	No.: 23046	SAS No.:	SDG No.: GCD002
Initial Cal	ibration Source:	Inorganic Vent	ures/Fisher	
Continuing	Calibration Source	e: SPEX/Fisher		
		Concen [†]	tration Units: ug/L	

:	Initial (Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Cyanide	120.0	118.54 98.8	150.0	146.46	97.6	149.4	10 99.6	AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: <u>\$TL BURLIN</u>	GTON	Contract: 23046	
Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCD002
Initial Calibration	Source: Inorganic Ventu	ures/Fisher	
Continuing Calibration	on Source: SPEX/Fisher		·····
	Concen ⁴	tration Units: ug/L	

	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Cyanide			150.0	149.12	99.4	148.0	98.7	7 AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BUI				
Lab Code: STLVT	Case No.:	23046	SAS No.:	SDG No.: GCD002
Initial Calibrati	on Source: Inorga	anic Vent	ures/Fisher	
Continuing Calibr	ation Source: SPI	EX/Fisher		
			tout the second that the second	

Concentration Units: ug/L

	Initial Calibration		Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Manganese	500.0	494.80 99.0	200.0	199.00	99.5	201.0	00 100.5	P

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BURLINGTON	Contract: 23046		
Lab Code:	STLVT Case No.:	23046 SAS No.:	SDG No.: G	CD002
Initial Ca	libration Source: Inorga	nic Ventures/Fisher		
Continuing	Calibration Source: SPE	EX/Fisher		
		Concentration Units: ug	/L	
		· · · · · · · · · · · · · · · · · · ·		

	Initial Calibration		Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Manganese			200.0	203.40	101.7	199.00	99.5	P

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

_

Concentration Units: ug/L

	Initial (Initial Calibration		Continuing Calibration				
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Cyanide	120.0	116.78 97.3	150.0	139.64	93.1	142.7	4 95.2	AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: _	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Initial Ca	ibration Source: Inorganic Ventu	res/Fisher	
Continuing	Calibration Source: SPEX/Fisher		•
	Concent	tration Units: ug/L	

	Initial	Calibration	Co	ontinuing	Calibra	ation		
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Cyanide			150.0	144.46	96.3	143.7	1 95.8	AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	\$TL BURLINGTO	N		Contract: 23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCD002
Initial Ca	alibration Sou	rce: <u>Inorg</u> a	nic Ven	tures/Fisher	
Continuin	g Calibration	Source: SPE	X/Fisher	r	
			Concer	ntration Units: ug/L	

Initial Calibration		Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Cyanide	120.0	117.46 97.9	150.0	140.94	94.0	143.6	95.8	3 AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	TL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 230	046 SAS No.:	SDG No.: GCD002
Initial Cal	ibration Source: Inorganic	c Ventures/Fisher	
Continuing	Calibration Source: SPEX/Fi	Fisher	
	Co	Concentration Units: ug/L	

	Initial	Calibration	Со	ntinuing	Calibr	ation		
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Cyanide			150.0	142.40	94.9			AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: STL BU	RLINGTON	Contract: 23046
Lab Code: \$TLVT	Case No.: <u>230</u>	946 SAS No.: SDG No.: GCD002
AA CRDL Standard	Source: Inorgan:	ic Ventures
ICP CRDL Standard	Source: Inorgan	ic Ventures
		Concentration Units: ug/L

CRDL Standard for ICP
Initial Final

	Initial			Deane	Final				
Analyte	True	Found	%R	True	F	ound	₹R	Found	%R
Mercury	0.2	0.22	110.0].				

Control Limits: no limits have been established by EPA at this time

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name:		STL BURLINGTON	Contract: 23046	
Lab	Code:	<u>\$TLVT</u> Case	No.: 23046 SAS No.: SDG No.:	GCD002
AA (CRDL St	andard Source:	Inorganic Ventures	
ICP	CRDL S	tandard Source:	Inorganic Ventures	

Concentration Units: ug/L

				CRDL Standard for ICP Initial Final				
Analyte	True	Found	%R	True	Found %R	Found	%R	
Mercury	0.2	0.14	70.0					

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTON	Contract: 23046	_
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Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCD002</u>

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

CRDL Standard for ICP
Initial Final
Analyte True Found %R True Found %R Found %R

 Lead
 6.0
 8.44 140.7
 8.17 136.2

 Selenium
 10.0
 9.26 92.6
 11.19 111.9

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: <u>\$TLVT</u> Case No.: 23046	SAS No.: SDG No.: GCD002	·
AA CRDL Standard Source: Inorganic V	'entures	
ICP CRDL Standard Source: Inorganic V	entures	

Concentration Units: ug/L

					CRDL Star	ndard :	for ICP	
				Init	cial		Fina.	L
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum				400.0				
Antimony				120.0	118.70	98.9	118.90	99.1
Arsenic				20.0	20.54	102.7	19.30	96.5
Barium				400.0	389.80	97.4		
Beryllium				10.0	10.01	100.1	10.09	100.9
Cadmium				10.0	9.75	97.5	9.91	99.1
Calcium				10000.0	10240.00	102.4	10290.00	102.9
Chromium				20.0	19.20	96.0	20.27	101.4
Cobalt				100.0	95.72	95.7	95.66	95.7
Copper				50.0	50.07	100.1	51.23	102.5
Iron				200.0	244.90	122.4	251.60	125.8
Lead				6.0	4.17	69.5	4.32	72.0
Magnesium				10000.0	9945.00	99.4	9977.00	99.8
Manganese			***	30.0	29.09	97.0	28.93	96.4
Nickel				80.0	79.51	99.4	80.56	100.7
Potassium				10000.0	10760.00	107.6	10900.00	109.0
Silver				20.0	19.93	99.6	20.50	102.5
Sodium				10000.0	9714.00	97.1	9875.00	98.8
Thallium				20.0	20.53	102.6	22.91	114.6
Vanadium				100.0	96.82	96.8	96.83	96.8
Zinc		***		40.0	39.43	98.6	39.67	99.2

Control Limits: no limits have been established by EPA at this time

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTON		Contract: 230	046		
Lab Code:	STLVT Case	No.: 23046	SAS No.:		SDG No.:	GCD002
AA CRDL St	andard Source:	Inorganic Ver	ntures			
ICP CRDL S	tandard Source:	Inorganic Ver	ntures			
		Cor	ncentration U	nits: ug/L		

CRDL Standard for ICP Final Initial Found Found %R ŧЯ ٧R True Analyte Found True 99.4

29.81

29.92 99.7

30.0

Control Limits: no limits have been established by EPA at this time

Manganese

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank				tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	M
Cyanide	10.	0 0	10.	0 0	10	ט ס	10.	0 U	0.500 U	AS

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

 Preparation Blank Matrix (soil/water):
 WATER

	Initial Calib. Blank				tinuing Blank	Calibra (ug/L)	ation		Preparation Blank		
Analyte	(ug/L)	c	1	С	2	С	3	c _		С	М
Cyanide			10.	0 0							AS

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

Preparation Blank Matrix (soil/water): SOIL

Initial Calib. Blank				Cont	Preparation Blank					
Analyte	(ug/L)	c	1	С	2	С	3	С	С	М
Mercury	0	1 U	0	1 0	0	. 1 ט	0.	1 U	0.017 U	cv

3

BLANKS

Lab Name: STL BURLINGTON	Contract: 23046	-
Lab Code: STLVT Case No.: 23046	SAS No.: SDG N	o.: GCD002
Preparation Blank Matrix (soil/water): WATER	MARINE CONTROL	
Preparation Blank Concentration Units (ug/L o	or mg/kg): UG/L	

	Initial Calib. Blank				inuing Blank	Calibra (ug/L)	ation	ï	Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Mercury			0.	1 B						CV

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank				tinuing Blank	Preparation Blank				
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Mercury	0.	. 1 บ	0	.1 0	0	. 1 U			0.017 U	cv

3

BLANKS

Lab	Name:	STL BURLINGTO	N	Contract:	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCD002
Prep	aratio	n Blank Matr	x (soil/water): SOIL				

	Initial Calib. Blank			Co	ontinuing C Blank (u			tion		Preparation Blank		
Analyte	(ug/L)	c	1	С	2	С		3	С		С	М
Aluminum				١						2.360	U	P
Antimony						Ш			1	0.470	U	P
Arsenic.										0.480	บ	P
Barium										0.590	U	P
Beryllium							L			0.020	U	P
Cadmium										0.060	U	P
Calcium										18.210	Ŭ	P
Chromium										-0.211	В	P
Cobalt										0.200	U	P
Copper				Ī						0.240	U	P
Iron							l			3.464	В	P
Lead	1.5	U	2.9	В	1.5	U		2.3	В	0.196	В	P
Magnesium										17.830	U	P
Manganese										0.070	U	P
Nickel										-0.315	B	P
Potassium						Ī	1			39.300	U	P
Selenium	1.7	U	1.7	U	1.7	U		1.7	ט	0.211	В	P
Silver	İ					Ī				0.220	ប	P
Sodium	İ	ΙŤ				Ī				88.450	В	P
Thallium	i i		· · · · · · · · · · · · · · · · · · ·	Ī		Ī				0.570	Ū	P
Vanadium	İ					Ī	1			0.200	Ū	P
Zinc	<u> </u>	Ιİ				ī	1			0.104	В	P

3

BLANKS

Lab Name: STL BURL	INGTON	Contract: 23046	Contract: 23046							
Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCD002						
Preparation Blank	Matrix (soil/water): SOIL	1								

	Initial Calib. Blank			Con	tinuing Blank		Preparation Blank				
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum								<u> </u>	2.360	U	P
Antimony								<u> </u>	0.470	U	P
Arsenic									0.480	U	P
Barium									0.590	U	P
Beryllium				1					0.020	U	P
Cadmium								<u> </u>	0.060	U	P
Calcium				Ī					18.210	U	P
Chromium				Ī					-0.189	В	P
Cobalt									0.200	U	P
Copper									0.240	U	P
Iron						<u> </u>			3.330	U	P
Lead			2.5	В					0.241	В	P
Magnesium									17.830	U	P
Manganese						i i			0.070	U	P
Nickel						İÏ			-0.304	В	P
Potassium		Ti i							39.300	U	P
Selenium		iii	1.7	U					0.170	Ŭ	P
Silver		11		i		Ti			0.220	U	P
Sodium	İ	i i				iii			87.810	В	P
Thallium		<u> </u>				iii			0.570	ប	P
Vanadium		<u> </u>				i i			0.200	Ū	P
Zinc		<u> </u>				T			0.198	В	P

3 **BLANKS**

_____ Contract: 23046 Lab Name: STL BURLINGTON

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank		_		ontinuing Ca Blank (ug	Preparation Blank					
Miary ce	(ug/L)	С	1	C	2	С	3	С		С	М
Aluminum	-33.7	В	-38.2	В	-62.3	В		В			P
Antimony	4.7	Ŭ	4.7	U	4.7	U	4.7	U			P
Arsenic	4.8	U	4.8	U	4.8	Ū	4.8	U			P
Barium	5.9	U	5.9	ן ט	5.9	U	5.9	U			P
Beryllium	0.3	В	0.3	В	0.4	В	0.4	В			P
Cadmium	0.6	U	0.6	Ü	0.6	U	0.6	Ū			P
Calcium	182.1	บ	182.1	U	182.1	Ŭ	182.1	ט			P
Chromium	-2.7	В	-2.5	В	-2.6	В	-2.3	В	i t		P
Cobalt	2.0	Ū	2.0	U	2.0	ַ	2.0	U			P
Copper	2.4	U	2.4	ַ	2.4	U	2.4	U			P
Iron	33.3	Ū	33.3	ט	33.3	U	33.3	U			P
Lead	1.3	Ū	1.3	U	1.3	U	1.3	U			P
Magnesium	178.3	Ū	178.3	ָּט	178.3	U	178.3	U			P
Manganese	0.7	U	0.7		0.7	Ū	0.7	U			P
Nickel	2.1	U	2.1	U	2.1	U	2.1	U			P
Potassium	393.0	U	393.0	U	393.0	U	393.0	บ			P
Silver	2.2	U	2.2		2.2	U	2.2	U		·	P
Sodium	472.7	U	472.7	U	472.7	U	472.7	U			P
Thallium	5.7	U	5.7	U	5.7	U	5.7	U	Ì		P
Vanadium	2.0	U	2.0	י ד	2.0	ָט	2.0	Ū	İ		P
Zinc	1.0	Ū	1.0		1.0	U	1.0	Ū			P

3

BLANKS

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCD002
Preparation Blank Matrix (soil/water): WATER	<u>R</u>
Preparation Blank Concentration Units (ug/L	or mg/kg): UG/L

	Initial Calib. Blank		Continuing Calibration Blank (ug/L) Preparation Blank									
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М	
Aluminum			-44.1	В	-34.7	В					P	
Antimony			4.7	ט	4.7	U].		P	
Arsenic			. 4.8	υ	4.8	U					P	
Barium			5,9	ַע	5.9	Ŭ					P	
Beryllium			0.4	В	0.4	В					P	
Cadmium			0.6	U	0.6	U					P	
Calcium			182.1	ע	182.1	U					P	
Chromium			-2.5	В	-2.6	В				<u></u>	P	
Cobalt			2.0	U	2.0	U					P	
Copper			2.4	υ	2.4	U					P	
Iron			33.3	ן ט	33.3	U					P	
Lead			1.3	ן ט	1.3	Ū		<u> </u>			P	
Magnesium			178.3	ן ט	178.3	U					P	
Manganese			0.7	U	0.7	บ					P	
Nickel			2.1	<u>ע</u>	2.1	U					P	
Potassium			393.0	ע	393.0	U					P	
Silver			2.2	ט	2.2	U					P	
Sodium			472.7	U	472.7	U					P	
Thallium			5.7	ט	5.7	U					P	
Vanadium			2.0	ט	2.0	Ū					P	
Zinc	İ	T	1.0	υl	1.0	U					P	

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

Preparation Blank Matrix (soil/water): SOIL

Cali	Initial Calib. Blank			inuing Blank	Preparation Blank				
	(ug/L) C	. 1	С	2	С	3	С	С	M
Cyanide	10.0 U	10.	0 0	10	ַ ט	10.	0 U	0.467 U	AS

3

BLANKS

Lab Name: STL BURLINGTON	Contract: 23046		
Lab Code: <u>\$TLVT</u> Case No.: <u>23046</u>	SAS No.:	SDG No.:	GCD002
Preparation Blank Matrix (soil/water): WATER	<u> </u>		
Bronzestion Blank Concentration Unite (190/).	or ma/ka): UG/L		

	Initial Calib. Blank			Cont	_	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	c	1	C ·	2	С	3	C	С	М
Cyanide			10.	0 0						AS

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank				inuing Blank		ation		Preparation Blank	
Analyte	(ug/L)	С	1 .	C	2	С	3	С	С	М
Manganese	0.	7 U	0.	7 0	0.	7 ט	0.	7 บ		P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con		Calibrate (ug/L)	ation		Preparation Blank		
Analyte	(ug/L)	С	1	С	. 2	С	. 3	c_		С	M
Manganese			0.	. 기 [기							P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

Preparation Blank Matrix (soil/water): SOIL

Initial Calib. Blank			Cont	Preparation Blank						
Analyte	(ug/L)	С	1	С	2	C	- 3	C	С	М
Cyanide	10.	. O U	10.	. 0 U	10	. 0 U	10.	0 U	0.490 U	AS

3

BLANKS

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCD002	
Preparation Blank Matrix (soil/water): WATER	8	
Description Plank Concentration Units (ug/I.	or ma/ka) · UG/L	

	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	C	·	С	М
Cyanide			10.	.이미							AS

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD002

Preparation Blank Matrix (soil/water): SOIL

,	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte	(ug/L)	c	1	С	2	С	3	С		C	M
Cyanide	10.	0 0	10.	0 0	10	. 0 ט	10.	0 U	0.495	Ū	AS

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

Concentration Units: ug/L

	True			al Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AE	3 %R	Sol.A	Sol.AB	%R	
Lead	ol	44	1	45.6	103.6	1	47.2	107.3	
Selenium	0	48	-2	43.6	90.8	-3	51.2	106.7	

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

									
	Tru	le	Init	ial Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AF	3 %R	Sol.A	Sol.AE	%R	
Aluminum	500000	482740	490000	494600.0	102.5	491700	489100.0	101.3	
Antimony	0	596	-3	599.9	100.7	-3	593.3	99.5	
Arsenic	0	102	6	104.5	102.5	3	100.4	98.4	
Barium	0	503	2	495.0	98.4	2	487.6	96.9	
Beryllium	0	482	0	475.8	98.7	0	468.5	97.2	
Cadmium	0	938	0	927.3	98.9	-1	913.8	97.4	
Calcium	500000	477840	481800	488500.0	102.2	480800	482000.0	100.9	
Chromium	0	483	1	473.9	98.1	1	465.2	96.3	
Cobalt	o	457	-1	455.4	99.6	-1	446.9	97.8	
Copper	0	526	3	507.7	96.5	3	500.0	95.1	
Iron	200000	191980	197000	197200.0	102.7	197200	195000.0	101.6	
Lead	0	49	-2	41.9	85.5	-1	42.2	86.1	
Magnesium	500000	521880	527200	535000.0	102.5	524900	526600.0	100.9	
Manganese	0	474	1	466.7	98.5	1	455.4	96.1	
Nickel	0	952	2	943.0	99.1	2	925.3	97.2	
Potassium	0	0	-40	-6.4		36	43.4		
Silver	0	213	1	212.5	99.8	1	209.1	98.2	
Sodium	0	0	-231	-127.1		-141	-125.0		
Thallium	0	89	2	91.6	102.9	0	88.7	99.7	
Vanadium	0	478	4	467.1	97.7	4	458.9	96.0	
Zinc	0	998	3	995.5	99.7	3	981.9	98.4	

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

ICP ID Number: TJA ICAP 4

Concentration Units: ug/L

True Initial Found Final Found

	True		Initi	al Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB 9	%R Sol	. A	Sol.AB	%R	
Manganese	0	474	1	477.0 10	0.6	1	487.1	102.8	

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

GRANSTP	SD53S	
	GRANSTP	GRANSTPSD53S

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 78.6 Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)		Spike Added (SA)	%R	Ω	├—
Aluminum	1	9962.3857		10187.6797		221.26	-101.8		P
Antimony	75 - 125	27.7796		2.0136	В	55.32		N	P
Arsenic		113.9507		129.6179	<u> </u>	4.43	-353.7		P
Barium	75 - 125	338.2011		139.4708	<u> </u>	221.26			P
Beryllium	75 - 125	5.4696		0.2433	В	5.53	94.5	<u> </u>	P
Cadmium	75 - 125	6.1710		0.9585		5.53		L	P
Chromium	75 - 125	29.3285		10.3599	<u> </u>	22.13	85.7	L	P
Cobalt	75 - 125	57.6723		6.9477		55.32	91.7	L	P
Copper	75 - 125	43.7327		18.1274		27.66	92.6		P
Iron	1	19637.1309		21618.9395		110.63	-1791.4	<u> </u>	P
Lead		32.2270		38.2158		2.21	-271.0		P
Manganese	I	406.5716		364.1738		55.32	76.6		P
Mercury	75 - 125	0.3280		0.1128	<u> </u>	0.20	107.6	<u> </u>	CV
Nickel	75 - 125	57.5064		6.2417		55.32	92.7		P
Selenium	75 - 125	1.3630		0.4391	В	1.11	83.2		P
Silver	75 - 125	6.6622		1.7659		5.53	88.5		P
Thallium	75 - 125	5.4420		0.6896	В	5.53	85.9		P
Vanadium	75 - 125	94.5237		52.0863		55.32	76.7		P
Zinc	75 - 125	193.7161		149.5150		55.32	79.9		P
Cyanide	75 - 125	5.8886		0.5731	ט	5.73	102.8		AS

Comments:	
	A District Control of the Control of

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Lab	Name:	STL BURLING	GTON	Contra	Contract: 23046						
Lab	Code:	STLVT	Case No.: 23046	SAS		SDG No.:	GCD002				
Mati	cix (sc	oil/water):	SOTI		Level (low/	med): LOW					

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added(SA)	%R	Q	м
Aluminum		107200.00		106500.00		2000.0	35.0		P
Antimony		518.30		21.05	в	500.0	99.4		P
Arsenic		1360.00		1355.00		40.0	12.5		P
Barium		3410.00		1458.00		2000.0	97.6		P
Beryllium		51.86		2.54	В	50.0	98.6		P
Cadmium		58.24		10.02		50.0	96.4		P
Chromium		307.60		108.30		200.0	99.6		P
Cobalt		554.40		72.63		500.0	96.4		P
Copper		447.60		189.50		250.0	103.2		P
Iron		222400.00		226000.00		1000.0	-360.0		P
Lead	1	412.50		399.50		20.0	65.0		P
Manganese		4214.00		3807.00		500.0	81.4		P
Nickel		549.60		65.25		500.0	96.9		P
Selenium		14.44		4.59	В	10.0	98.5		P
Silver		68.76		18.46		50.0	100.6		P
Thallium		53.70		7.21	В	50.0	93.0		P
Vanadium		1036.00		544.50		500.0	98.3		P
Zinc		2008.00		1563.00		500.0	89.0		P
Cyanide		21.48		10.00	Ŭ	20.0	107.4		AS

Comments:			
	<u> </u>	 	

6 **DUPLICATES**

SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Duplicate: 81.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	м
Aluminum	222	10187.6797		6896.9580		38.5	*	P
Antimony		2.0136	В	1.5673	В	24.9		P
Arsenic		129.6179		120.7048		7.1		P
Barium	19.1	139.4708		98.0713		34.9	*	P
Beryllium		0.2433	В	0.1891	В	25.1		₽
Cadmium	0.5	0.9585		0.8358		13.7		P
Calcium	478.3	2184.8521		1470.0540		39.1	*	P
Chromium		10.3599		6.0352		52.8	*	P
Cobalt		6.9477		5.1340	В	30.0		P
Copper	2.4	18.1274		12.2950		38.3	*	P
Iron		21618.9395		14647.0801		38.4	*	P
Lead		38.2158		70.2204		59.0	*	P
Magnesium		4785.8188		2975.3889		46.7	*	P
Manganese		364.1738		302.8845	·	18.4		P
Mercury	0.0	0.1128		0.1996		55.6	*	CV
Nickel		6.2417		3.8895	В	46.4		P
Potassium	478.3	2840.1160		2122.2229		28.9	*	P
Selenium		0.4391	В	0.4494	В	2.3		P
Silver	1.0	1.7659		1.7256		2.3		P
Sodium		45.2180	υ	53.8200	В	200.0		P
Thallium		0.6896	В	0.6094	U	200.0		P
Vanadium		52.0863		32.6298		45.9	*	P
Zinc		149.5150		94.4576		45.1	*	P
Cyanide		0.5731	U	0.5783	υ			AS

7 LABORATORY CONTROL SAMPLE

Lab Name:	ab Name: \$TL BURLINGTON		Contract: 23046	<u> </u>
Lab Code:	\$TLVT	Case No.: 23046	SAS No.:	SDG No.: GCD002
Solid LCS	Source:	Environmental Express		

Aqueous LCS Source:

	Aqueous	(ug/L)		Solid (mg/kg)				
Analyte	True	Found	%R	True	Found C	Limits		%R
Cyanide				6.0	5.7	5.4	6.6	95.0

7 LABORATORY CONTROL SAMPLE

Lab Name: STL BURLINGTON		Contract: 23046				
Lab Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCD002		
Solid LCS	Source:	Environmental Express				

Aqueous LCS Source:

	Aqueous	(ug/L)		Solid (mg/kg)				
Analyte	True	Found	%R	True	Found C	Limits	%R	
Mercury				0.1	0.1	0.1	0.1 100.0	

7 LABORATORY CONTROL SAMPLE

Lab Name: STL E		_ Contract:	23046						
Lab Code: \$TLVI	Case No	.: <u>23046</u>		SAS No.: _		SDG No	:: GCD002		
Solid LCS Source	e: Environmenta	al Expres	S						
Aqueous LCS Sou	rce:								
	Aqueous	(ug/L)			Solid	(mg/k	g)		
Analyte	True	Found	%R	True	Found	С	Limits	%R	

0.1

0.1

0.1

0.1 | 100.0 |

Mercury

7 **LABORATORY CONTROL SAMPLE**

Lab Name:	\$TL BURLINGTON	Contract: 2304	16

Solid LCS Source: Environmental Express

Aqueous LCS Source:

	Aqueous	(ug/L)			Solid	(mg/kg)	•	
Analyte	True	Found	%R	True	Found C	Limi	ts	%R
Aluminum				200.0	205.1	160.0	240.0	102.6
Antimony				50.0	50.1	40.0	60.0	100.2
Arsenic	.			24.0	22.7	19.2	28.8	94.6
Barium				200.0	197.9	160.0	240.0	99.0
Beryllium				5.0	5.0	4.0	6.0	100.0
Cadmium				25.0	24.7	20.0	30.0	98.8
Calcium				2000.0	2043.0	1600.0	2400.0	102.2
Chromium		······································		20.0	20.1	16.0	24.0	100.5
Cobalt				50.0	49.0	40.0	60.0	98.0
Copper				25.0	25.9	20.0	30.0	103.6
Iron	İ			100.0	99.3	80.0	120.0	99.3
Lead				22.0	21.4	17.6	26.4	97.3
Magnesium				2000.0	1984.0	1600.0	2400.0	99.2
Manganese				50.0	49.9	40.0	60.0	99.8
Nickel				50.0	49.0	40.0	60.0	98.0
Potassium				2000.0	1989.0	1600.0	2400.0	99.4
Selenium				21.0	19.2	16.8	25.2	91.4
Silver				25.0	25.2	20.0	30.0	100.8
Sodium				2000.0	2043.0	1600.0	2400.0	102.2
Thallium				25.0	23.8	20.0	30.0	95.2
Vanadium				50.0	50.3	40.0	60.0	100.6
Zinc				50.0	49.5	40.0	60.0	99.0

7 LABORATORY CONTROL SAMPLE

Lab	Name:	\$TL BURLINGTON			Contract:	23046			
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCD002	

Solid LCS Source: Environmental Express

Aqueous LCS Source:

	Aqueous	(ug/L)		Solid (mg/kg)						
Analyte	True	Found	%R	True	Found C	Limi	ts	%R		
Aluminum				200.0	206.0	160.0	240.0	103.0		
Antimony	1			50.0	49.8	40.0	60.0	99.6		
Arsenic				24.0	22.7	19.2	28.8	94.6		
Barium				200.0	199.2	160.0	240.0	99.6		
Beryllium				5.0	5.0	4.0	6.0	100.0		
Cadmium				25.0	24.6	20.0	30.0	98.4		
Calcium				2000.0	2031.0	1600.0	2400.0	101.6		
Chromium				20.0	20.0	16.0	24.0	100.0		
Cobalt				50.0	48.6	40.0	60.0	97.2		
Copper				25.0	26.0	20.0	30.0	104.0		
Iron	1			100.0	100.1	80.0	120.0	100.1		
Lead				22.0	21.6	17.6	26.4	98.2		
Magnesium				2000.0	1968.0	1600.0	2400.0	98.4		
Manganese				50.0	49.5	40.0	60.0	99.0		
Nickel		· · · · · · · · · · · · · · · · · · ·		50.0	48.9	40.0	60.0	97.8		
Potassium				2000.0	2006.0	1600.0	2400.0	100.3		
Selenium				21.0	19.5	16.8	25.2	92.9		
Silver		······································	İ	25.0	25.3	20.0	30.0	101.2		
Sodium		***************************************		2000.0	2070.0	1600.0	2400.0	103.5		
Thallium				25.0	23.5	20.0	30.0	94.0		
Vanadium				50.0	50.2	40.0	60.0	100.4		
Zinc			i	50.0	49.4	40.0	60.0	98.8		

7 LABORATORY CONTROL SAMPLE

Lab Name: STL BURLINGTON				Contract:	23046			
Lab Code: \$	TLVT Case No	.: <u>23046</u>	J	SAS No.: _	s	DG No.: GCD002		
Solid LCS So	ource: Environmenta	1 Express						
Aqueous LCS	Source:							
	Aqueous	(ug/L)			Solid	(mg/kg)		
Analyte	True	Found	%R	True	Found C	Limits	%R	

6.0

6.1

5.4

6.6 101.7

Cyanide

7 LABORATORY CONTROL SAMPLE

Lab Name: <u>\$TL BU</u>	JRLINGTON	Contract: 23046			
Lab Code: \$TLVT	Case No.: 23046	SAS No.:	SDG 1	No.: GCD002	
Solid LCS Source	: Environmental Express				
Aqueous LCS Sour	ce:				
	Aqueous (ug/L)	So	lid (mg/	'kg)	
Analista	m Formal 91	D Bonn	nd C	Limits	%R

Cyanide

6.0

5.4

6.0

6.6 100.0

7 LABORATORY CONTROL SAMPLE

Lab Name: <u>\$TL BU</u>	RLINGTON			Contract:	23046			
Lab Code: \$TLVT	Case N	o.: <u>23046</u>		SAS No.: _	SDG	No.: GCD00)2	
Solid LCS Source:	Environment	al Express	3					
Aqueous LCS Source	e:							
Aqueous LCS Source: Environmental Express Aqueous LCS Source: Aqueous (ug/L) Analyte True Found					Solid (m	g/kg)		
Analyte	True	Found	%R	True	Found C	Limits		%R
Cyanide	<u> </u>		i	6.01	5.9	5.4	6.6	98.3

Cyanide

6.0

5.4

5.9

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD002
Solid LCS	Source: Environmental Express		
Aqueous LO	S Source:		
	Aqueous (ug/L)	Solid	(mg/kg)

	Aqueous	(ug/L)		Solid (mg/kg)				
Analyte	True	Found	%R	True	Found C	Limits	%R	
Cyanide				6.0	6.6	5.4	6.6 110.0	

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	ON		Contract:	23046	
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCD002

Solid LCS Source: Environmental Express

Aqueous LCS Source:

	Aqueous	(ug/L)			Solid (mo	g/kg)	
Analyte	True	Found	%R	True	Found C	Limits	%R
Mercury				0.1	0.1	0.1	0.1 100.0

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGT	ON		Contract:	23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCD002	

Solid LCS Source: Environmental Express

Aqueous LCS Source:

:	Aqueous	(ug/L)			Solid	(mg/kg)		
Analyte	True	Found	%R	True	Found C	Limi	ts	%R
Aluminum				200.0	208.3	160.0	240.0	104.2
Antimony				50.0	50.2	40.0	60.0	100.4
Arsenic				24.0	23.1	19.2	.28.8	96.2
Barium				200.0	200.4	160.0	240.0	100.2
Beryllium				5.0	5.1	4.0	6.0	102.0
Cadmium				25.0	25.0	20.0	30.0	100.0
Calcium			1	2000.0	2066.0	1600.0	2400.0	103.3
Chromium				20.0	20.3	16.0	24.0	101.5
Cobalt				50.0	49.4	40.0	60.0	98.8
Copper				25.0	26.3	20.0	30.0	105.2
Iron				100.0	100.9	80.0	120.0	100.9
Lead			ĺ	22.0	21.9	17.6	26.4	99.5
Magnesium			Ì	2000.0	2007.0	1600.0	2400.0	100.4
Manganese				50.0	50.1	40.0	`60.0	100.2
Nickel		.,	İ	50.0	49.4	40.0	60.0	98.8
Potassium				2000.0	2026.0	1600.0	2400.0	101.3
Selenium			İ	21.0	19.3	16.8	25.2	91.9
Silver				25.0	25.6	20.0	30.0	102.4
Sodium			1	2000.0	2087.0	1600.0	2400.0	104.4
Thallium				25.0	23.7	20.0	30.0	94.8
Vanadium				50.0	50.9	40.0	60.0	101.8
Zinc			i	50.0	50.0	40.0	60.0	100.0

LABORATORY CONTROL SAMPLE

Lab Name: \$	\$TL BURLINGTON				_ Contract:	23046			
Lab Code: \$	STLVT	Case No	.: <u>23046</u>		SAS No.: _		SDG No	o.: GCD002	······································
Solid LCS S	ource: <u>E</u> r	nvironmenta	al Express	3					
Aqueous LCS	Source: _								
		Aqueous	(ug/L)			Solid	(mg/k	(g)	
Analyte		True	Found	%R	True	Found	С	Limits	%R

Cyanide

6.0

5.9

5.4

7 LABORATORY CONTROL SAMPLE

Lab Name: <u>\$TL</u>	BURLINGTON		Contract:	23046			
Lab Code: \$TL	VT Case No.	.: 23046	SAS No.:		SDG No.	: GCD002	
Solid LCS Sour	rce: Environmenta	1 Express					
Aqueous LCS So	ource:						
	Aqueous	(ug/L)		Solid	(mg/kg)	
Analyte	True	Found %	R True	Found	c :	Limits	%R

Cyanide

6.0

5.9

98.3

6.6

5.4

9 ICP SERIAL DILUTIONS

SAMPLE	NO.
SAULTE	110

GRANSTPSD53L

Lab N	lame:	STL BURLINGTON	1	Contract: 23046				
Lab C	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCD002			

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

	Concentra	110	n Units: ug/L		·		
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Differ- ence	Q	M
Aluminum	106500.00		110500.00		3.8		P
Antimony	21.05	В	23.50	ט	100.0		P
Arsenic	1355.00		1452.00		7.2		P
Barium	1458.00		1481.00		1.6		P
Beryllium	2.54	В	3.87	В	52.4		P
Cadmium	10.02	Ì	10.80	В	7.8		P
Calcium	22840.00	Ì	23820.00	В	4.3		P
Chromium	108.30		102.90		5.0		P
Cobalt	72.63		76.71	В	5.6		P
Copper	189.50		186.10		1.8		P
Iron	226000.00	Ī	235300.00		4.1		P
Lead	399.50		433.70		8.6		P
Magnesium	50030.00	<u></u>	51900.00		3.7		P
Manganese	3807.00		3960.00		4.0		P
Nickel	65.25		82.25	В	26.1		P
Potassium	29690.00		32680.00		10.1	E	P
Selenium	4.59	В	8.50	ט	100.0		P
Silver	18.46	Ì	22.59	В	22.4		P
Sodium	472.70	Ū	2363.50	U			P
Thallium	7.21	В	28.50	ט	100.0		P
Vanadium	544.50	Ī	561.60		3.1		F
Zinc	1563.00	Ī	1664.00	П	6.5	1	P

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGT	ON		Contract	: <u>23046</u>				_
Lab Code: STLVT	Case No.: 23	046	SAS No.:		s	DG No	.: GCD002	
ICP ID Number:			Date:	7/1/2003	<u> </u>			
Flame AA ID Number: <u>L</u>	achat Cyanio	de						
Furnace AA ID Number:								
	Analyte	Wave- length	Back- ground	CRDL	IDL (ug/L)	М		

10.0 AS

10

Cyanide

Comments:	

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	N		Contrac	t: <u>23046</u>			
Lab Code: STLVT C	ase No.: 230	046	SAS No.		_ SDG	No.	: GCD002
ICP ID Number:			Date:	7/1/2003			
Flame AA ID Number: <u>Le</u> Furnace AA ID Number: _		AA					
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М	
	Mercury	253.70		0.2	0.10	CV	

Comments:	

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCD002
ICP ID Number: TJA ICAP 4	Date: 7/1/2003
Flame AA ID Number:	

Furnace AA ID Number:

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М
Aluminum	308.215		200	23.6	P
Antimony	206.838		60	4.7	P
Arsenic	189.042		10	4.8	P
Barium	493.409		200	5.9	P
Beryllium	313.042		5	0.2	Р
Cadmium	226.502		5	0.6	P
Calcium	317.933		5000	182.1	P
Chromium	267.716		10	1.4	Р
Cobalt	228.616		50	2.0	P
Copper	324.754		25	2.4	Р
Iron	271.441		100	33.3	P
Lead	220.353		3	1.3	Р
Magnesium	279.078		5000	178.3	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.1	P
Potassium	766.491		5000	393.0	P
Silver	328.068		10	2.2	P
Sodium	330.232		5000	472.7	P
Thallium	190.864		10	5.7	P
Vanadium	292.402		50	2.0	P
Zinc	213.856		20	1.0	P

Comments:	i	
	:	

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGT	ON		Contract	t: <u>23046</u>				
Lab Code: STLVT	Case No.: 23	046	SAS No.:		SD	G No.	: GCD002	
ICP ID Number: <u>TJA ICA</u>	2 6		Date:	7/1/2003				
Flame AA ID Number: _ Furnace AA ID Number:								
	Analyte	Wave- length	Back- ground	CRDL (ug/L)	IDL (ug/L)	м		

3

5

1.5 P

1.7 P

(nm)

Lead

Selenium

220.353

196.026

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave-	Interelement Correction Factors for:				
Analyte	length (nm)	Al	Ca	Fe	Mg	Ba
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.000000	0.0008950	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000330	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0006300	0.000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Nickel	231.60	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Selenium	196.03	0.0000000	0.000000	-0.0000220	0.0000000	0.000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Thallium	190.86	0.0000200	0.000000	-0.0000900	0.0000000	0.000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Vanadium	292.40	0.0000000	0.000000	0.0000490	0.0000000	0.000000
Zinc	213.86	0.0000250	0.0000000	0.0000630	0.0000000	0.000000

Comments:

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046
Lab	Name:	STL BURLINGTON	Concract.	23040

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave-		Interelement	Correction E	actors for:	
Änalyte	length (nm)	Со	Cr	Cu	Mn	Мо
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0001150	0.0000000	0.0000000	0.0000000	0.0001350
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.1059800	0.0000000	0.0000000	0.0000000	0.0036200
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0004300	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007920
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	-0.0160000
Zinc	213.86	0.0000000	0.0000000	0.0003300	0.0000000	0.000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab N	Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length]	Interelement	Correction :	Factors for:	
Analyte	(nm)	Ni	Sb	Sn	V	Zn
Aluminum	308.22	0.0000000	0.0000000	0.1440400	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0006280	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	-0.000192	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0237000	0.0000000
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0001660	0.000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	-0.1212200	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.1177000
Thallium	190.86	0.0000000	0.0000000	0.0000000	0.0025400	0.000000
Tin	189.99	0.0000000	0.0000000	0.0000000	·	0.000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Zinc	213.86	0.0052400	0.0000000	0.0000000	0.0000000	0.000000

Comments:

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON	Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

	Wave-	I	nterelement	Correction	Factors for:	
Analyte	length (nm)	Al	Ca	Fe	Mg	Ag
Aluminum	308.215	0.0000000	0.0000000	-0.0002180	0.0000000	0.0000000
Antimony	206.838	0.0000080	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000170	0.0000000	-0.0000590	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	-0.0000740	0.0000000	0.0000000
Cadmium	226.502	0.0000010	0.0000000	0.0000590	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000100	0.0000000	-0.0000200	0.0000060	0.0000000
Cobalt	228.616	0.0000000	0.0000000	-0.0000400	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0001740	0.000000	0.0000000	-0.001587	0.0000000
Lead	220.353	-0.0000300	0.0000000	0.0000550	-0.000006	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	-0.0000520	0.0000000	0.0000000
Phosphorus	178.287	0.0000070	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Selenium	196.026	0.0000000	0.000000	-0.0007500	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000240	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000080	0.000000	-0.0001100	0.0000000	0.000000
Tin	189.989	0.0000090	0.000000	-0.0000750	0.0000000	0.000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000140	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.0000030	0.0000040	0.000000
Zinc	206.200	0.0000300	0.000000	-0.0000600	0.0000000	0.0000000

Comments:	:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

	Wave-		Interelement	Correction	Factors for:	
Analyte	length (nm)	As	В	Be	Cd	Со
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	-0.0082960
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001900
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	0.0000000	0.0000000	0.0002350
Tin	189.989	0.0000000	0.000000	-0.0004370	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0000000	0.000000	0.0000000	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name:	STL BURLINGTON	Contract: 23046	

:	Wave- length]	Interelement	Correction E	actors for:	
Analyte	(nm)	Cr	Cu	Mn	Na	Ni
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Antimony	206.838	0.0078510	0.0000000	0.0000000	0.0000000	0.000000
Arsenic	189.042	-0.0002840	0.0000000	0.0000000	0.0000000	0.000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001750
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0008900	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000800
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Phosphorus	178.287	-0.0007400	0.0000000	0.0000000	0.0000000	0.000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	-0.0004500	0.0000000	0.000000
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Zinc	206.200	0.0044570	0.000000	0.0000000	0.0000000	0.000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab N	ame: STL BURLINGTON			Contract:	23046	
Lah C	ode STLVT	Case No.:	23046	SAS No.:	SDG 1	No.: GCD002

	Wave-	1	Interelement	Correction 1	Factors for:	
Analyte	length (nm)	Pb	Sb	Se	Si	Tl
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	.0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.000000	0.0000000	•	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Thallium	190.864	-0.0003500	0.0000000	0.0000000	0.0000000	0.000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0003900	0.000000	0.0000000	0.0000000	0.0000000

Comments:	:	 	 		 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON		Contract:	23046	
Lab	Code: STLVT	Case No.: 23046	SAS No.:		SDG No.: GCD002
ICP	ID Number: TJA ICAP 6	5	Date: <u>10</u>	0/1/2002	

	Wave- length	I	nterelement	Correction	Factors	for:
Analyte	(nm)	v	Zn			
Aluminum	308.215	0.0173200	0.0000000			
Antimony	206,838	-0.0012700	0.000000			
Arsenic	189.042	-0.0002800	0.000000			
Barium	493.409	0.0000000	0.0000000			
Beryllium	313.042	0.0004800	0.0000000			
Boron	249.678	0.0000000	0.000000			
Cadmium	226.502	0.0000000	0.0000000			
Calcium	317.933	0.0000000	0.000000			
Chromium	267.716	-0.0003600	0.000000			
Cobalt	228.616	0.0000000	0.000000			
Copper	324.754	0.0000000	0.000000			
Iron	271.441	0.0081200	0.0000000			
Lead	220.353	-0.0000850	0.000000			
Magnesium	279.079	0.0000000	0.0000000			
Manganese	257.610	0.0000000	0.0000000			
Molybdenum	202.030	0.0000000	0.000000			
Nickel	231.604	0.0000000	0.0000000		1	
Phosphorus	178.287	0.0000000	0.0164830			
Potassium	766.491	0.0000000	0.000000			
Selenium	196.026	0.0000000	0.000000			
Silver	328.068	-0.0003350	0.000000			
Sodium	330.232	-0.1479730	0.6581000			
Strontium	421.552	0.0000000	0.000000			
Thallium	190.864	0.0014900	0.000000			
Tin	189.989	0.0000000	0.0000000		1	
Titanium	334.941	0.0000000	0.000000			
Vanadium	292.402	0.0000000	0.000000			
Zinc	206.200	-0.0004730	0.000000			

Comments:			 	

12 ICP LINEAR RANGES (QUARTERLY)

Tah	Namo · 9	еiт.	BURLINGTON	Contract	:	23046	
பவப	name. r		DOTOTION	••••	٠.		

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	10000.0	P
Iron	10.00	1000000.0	P
Lead	10.00	10000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	10000.0	P
Potassium	10.00	100000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	5000.0	P

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

Lab	Name:	STL BURLINGTON		Contract:	23046	
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.: GCD002

ICP ID Number: TJA ICAP 6 Date: 7/1/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Lead	10.00	50000.0	P
Selenium	10.00	5000.0	P

Comments:

13 PREPARATION LOG

Lab	Name:	STL BURLINGTON	Contract:	23046	

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)
AJAXPDSSD06	7/30/2003	1.07	50.0
AJAXSTPSD04	7/30/2003	1.32	50.0
AJAXSTRSD04	7/30/2003	1.09	50.0
AJAXSTSSD52	7/30/2003	1.08	50.0
GRANSTPSD54	7/30/2003	1.21	50.0
GRANSTRSD53	7/30/2003	1.03	50.0
GRANSTRSD54	7/30/2003	1.05	50.0
ICV	7/30/2003	50.0	50.0
LCS0730B	7/30/2003	1.00	50.0
LCSD0730B	7/30/2003	1.00	50.0
MAGNPDSSD11	7/30/2003	1.10	50.0
MAGNSTPSD01	7/30/2003	1.03	50.0
MAGNSTPSD03	7/30/2003	1.13	50.0
PBS0730B	7/30/2003	1.00	50.0

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)
GRANSTPSD53	7/31/2003	1.11	50.0
GRANSTPSD53D	7/31/2003	1.10	50.0
GRANSTPSD53S	7/31/2003	1.11	50.0
ICV	7/31/2003	50.0	50.0
LCSD0731C	7/31/2003	1.00	50.0
PBS0731C	7/31/2003	1.07	50.0

13

PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
BLUESTPSD05	8/1/2003	1.16	50.0
BLUESTPSD05100	8/1/2003	1.33	50.0
ICV	8/1/2003	50.0	50.0
LCS0801A	8/1/2003	1.00	50.0
LCSD0801A	8/1/2003	1.00	50.0
PBS0801A	8/1/2003	1.02	50.0

13

PREPARATION LOG

Lab	Name:	STL BURLINGTO	ON	Contract:	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCD002

EPA Sample No.	Preparation Date	Initial Weight (g)	Volume (mL)
BLUESTPSD06	8/1/2003	1.02	50.0
BLUESTPSD07	8/1/2003	1.03	50.0
BLUESTPSD08	8/1/2003	1.11	50.0
BLUESTRSD08	8/1/2003	1.06	50.0
ICV	8/1/2003	50.0	50.0
LCS0801B	8/1/2003	1.00	50.0
LCSD0801B	8/1/2003	1.00	50.0
PBS0801B	8/1/2003	1.01	50.0

13 PREPARATION LOG

Lab	Name:	STL BURLINGTON	Contract:	23046	

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXPDSSD06	8/8/2003	0.67	100.0
AJAXSTPSD04	8/8/2003	0.60	100.0
AJAXSTRSD04	8/8/2003	0.62	100.0
AJAXSTSSD52	8/8/2003	0.62	100.0
GRANSTPSD53	8/8/2003	0.61	100.0
GRANSTPSD53D	8/8/2003	0.61	100.0
GRANSTPSD53S	8/8/2003	0.64	100.0
GRANSTPSD54	8/8/2003	0.66	100.0
GRANSTRSD53	8/8/2003	0.64	100.0
GRANSTRSD54	8/8/2003	0.60	100.0
LCSS0808B	8/8/2003	1.00	100.0
MAGNPDSSD11	8/8/2003	0.62	100.0
MAGNSTPSD01	8/8/2003	0.68	100.0
MAGNSTPSD02	8/8/2003	0.63	100.0
MAGNSTPSD03	8/8/2003	0.66	100.0
PBS0808B	8/8/2003	0.60	100.0

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PREPARATION LOG

Lab Name:	STL BURLINGTON	Contract:	23046

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
BLUESTPSD05	8/13/2003	0.64	100.0
BLUESTPSD05100	8/13/2003	0.66	100.0
BLUESTPSD06	8/13/2003	0.64	100.0
BLUESTPSD07	8/13/2003	0.61	100.0
BLUESTPSD08	8/13/2003	0.67	100.0
BLUESTRSD08	8/13/2003	0.60	100.0
LCSDS0813A	8/13/2003	1.00	100.0
LCSS0813A	8/13/2003	1.00	100.0
PBS0813A	8/13/2003	0.60	100.0

13 PREPARATION LOG

Lab	Name:	STL BURLINGTO	NC	Contract:	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCD002

Method: P

EPA Sample No.	Preparation Date	Initial Weight (g)	Volume (mL)
BLUESTPSD05	8/16/2003	1.24	100.0
BLUESTPSD05100	8/16/2003	1.36	100.0
BLUESTPSD06	8/16/2003	1.11	100.0
BLUESTPSD07	8/16/2003	1.30	100.0
BLUESTPSD08	8/16/2003	1.25	100.0
BLUESTRSD08	8/16/2003	1.18	100.0
LCSDS0816A	8/16/2003	1.00	100.0
LCSS0816A	8/16/2003	1.00	100.0
PBS0816A	8/16/2003	1.00	100.0

13 PREPARATION LOG

Lab	Name:	STL BURLINGTO	ON	Contract:	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCD002

Method: P

EPA Sample No.	Preparation Date	Initial Weight (g)	Volume (mL)
AJAXPDSSD06	8/16/2003	1.19	100.0
AJAXSTPSD04	8/16/2003	1.11	100.0
AJAXSTRSD04	8/16/2003	1.17	100.0
AJAXSTSSD52	8/16/2003	1.25	100.0
GRANSTPSD53	8/16/2003	1.33	100.0
GRANSTPSD53D	8/16/2003	1.19	100.0
GRANSTPSD53S	8/16/2003	1.15	100.0
GRANSTPSD54	8/16/2003	1.21	100.0
GRANSTRSD53	8/16/2003	1.28	100.0
GRANSTRSD54	8/16/2003	1.35	100.0
LCSS0816C	8/16/2003	1.00	100.0
MAGNPDSSD11	8/16/2003	1.32	100.0
MAGNSTPSD01	8/16/2003	1.35	100.0
MAGNSTPSD02	8/16/2003	1.23	100.0
MAGNSTPSD03	8/16/2003	1.23	100.0
PBS0816C	8/16/2003	1.00	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 7/30/2003 End Date: 7/30/2003

EPA													7	lna	ly	te	s										
Sample No.	D/F	Time	% R		S B			B E		C A	C R		C U		P B									T	V	Z N	
S0	1.00	1650																			Ė					\sqcap	х
S10	1.00	1651																	┪	┪	 	<u> </u>					х
S30	1.00	1652		i			İ			İ																	X
S50	1.00	1653																								T	x
S100	1.00	1654	,																							T	x
S200	1.00	1655																								T	x
S300	1.00	1656					<u> </u>																			T	x
ICV	1.00	1658								i											<u> </u>					$\neg \uparrow$	x
ICB	1.00	1659																									x
LRS	1.00	1700																									x
LRS	1.00	1701								П											<u> </u>						x
CCV	1.00	1702																			 						x
CCB	1.00	1703																									X
ZZZZZZ	1.00	1704					<u> </u>	<u> </u>													<u> </u>					寸	_
PBS0730B	1.00	1705									_														\dashv	$\neg \dagger$	x
LCS0730B	1.00	1706											T		i						_				ᅦ		 x
ZZZZZZ	1.00	1707																						П		十	_
ZZZZZZ		1708													1										T	寸	
ZZZZZZ											一														ᅦ	十	_
ZZZZZZ		1710		П	П							<u> </u>			\neg											十	_
ZZZZZZ		1711									_	_			一			-							_	_	_
ZZZZZZ		1711				i					一	ᅥ	1		-										ᅦ	_	
ZZZZZZ		1712									一			一				-								十	_
CCV	1.00	1713									\neg	ᅵ	7		一			_								寸	<u>_</u>
ССВ		1714				-						ᅥ	_		一	_							_		寸	_	<u>_</u>
ZZZZZZ		1715				7									一			ヿ								十	
ZZZZZZ		1716	***************************************								1			_					_				_		┪	十	
AJAXSTPSD04		1717				_				\dashv		၂	ᅥ	ᅥ	_	┪			_	П					┪	十	x
AJAXPDSSD06		1718								_		1		一	一		7	\neg							\dashv	7	x
AJAXSTRSD04		1719	· · · · · · · · · · · · · · · · · · ·			_	\neg				_	_	ᅥ		_	ᅥ	1								ᅥ		x
AJAXSTSSD52		1720	• * * * * * * * * * * * * * * * * * * *								1	ᅥ	1		_		-	ᅥ	_				_	_	-		x
GRANSTRSD54	<u></u>	1721				1			_	1	\neg		┪	\dashv	一	┪	1		_				ᅥ	ᅱ			x
GRANSTPSD54		1722				<u>!</u> 			\dashv		ᅥ	_	1		\dashv	_	\dashv	ᅦ	_	Н	Н		ᅥ	\dashv		_	<u>x</u>
MAGNSTPSD03		1723					_	_	_		_		ᅥ	ᅥ	ᆉ	ᅥ	ᅱ	-	_			\dashv			_		<u></u>
MAGNPDSSD11		1724			_	<u> </u>	긤			+	-	+		-		-	+	_	-			\dashv	_	-	\dashv		<u>-:</u>
ccv		1725			_	<u> </u>	\dashv	_		+	ᅱ		1		+	┪	ᅥ	닉				_	_	ᅥ		<u>-</u>	<u>x</u>
ССВ		1726			_	_		_		+	ᅥ	+	+	ᅥ	1	-	1			_			ᅥ	ᅱ	ᅦ	_	$\frac{1}{x}$
MAGNSTPSD02		1727		ᅥ	-			\dashv	_	十	ᆛ	+	ᅱ	ᅱ		-	-		-		\dashv	-			ᅱ		$\frac{x}{x}$

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON

Contract: 23046

Lab Code: STLVT

Case No.: 23046

SAS No.: SDG No.: GCD002

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 7/30/2003 End Date: 7/30/2003

EPA Sample	D/F	m:	. –	_									7	١na	ly	te	s										_
No.	D/F	Time	% R	A L	1	A S	ı	B E		ı			C				M N				S E			T	- 1		
MAGNSTPSD01	1.00	1728		\vdash	-	-	\vdash	 	-			_				0	- 1	-			-	G	A	L		И	1
GRANSTRSD53	1.00	1729			_							_	Щ							_	Ц			_	_ļ	_	[]
LCSD0730B	1.00				<u> </u>	_			Н		_		_		긕	_		_	4		Ц		_	_	4	_	}
ccv	1.00	1731	'		<u> </u>				Н	-	\dashv		-	긕	_	ᆛ	4	4	4	_	_	_	_	4	4	\dashv	}
CCB	1.00	1732		\Box						ᆛ	\dashv	—¦	-	\dashv	┥	-	-	 		_	_		4	4	4	_Į	X

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 7/31/2003 End Date: 7/31/2003

EPA													7	lna	ly	te	s										
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С		С		P	М	М	н	N	K	S	A	N	T	٧	Z	С
No.				L	В	s	A	E	D	A	R	0	ַ	E	В	G	N	G	I		E	G	A	L		N	N
so	1.00	1728																			İ						Х
S10	1.00	1729	, , ,	İ															Ī							一	х
s30	1.00	1730																		Π	l						х
S50	1.00	1731																									Х
S100	1.00	1732				İ				Π																	Х
S200	1.00	1733				İ				İ																	Х
s300	1.00	1734																									х
ICV	1.00	1735																								一	Х
ICB	1.00	1736																			 						X
LRS	1.00	1737								i																寸	x
LRS	1.00	1738		П																						寸	x
CCV	1.00	1739	J 8500																				l			\dashv	x
CCB	1.00	1740								i																寸	x
ZZZZZZ	1.00	1741													i		П									寸	_
PBS0731C	1.00	1742											П		一								一	П	\neg	寸	x
LCSD0731C	1.00	1743																					_		寸	寸	
GRANSTPSD53	1.00	1744		П						i					一											寸	×
GRANSTPSD53D	1.00	1745									_	_			T								1				_ x
GRANSTPSD53S	1.00	1746										T		T	_										1		
ZZZZZZ	1.00	1747										一		一i									ᅥ		i	寸	_
ZZZZZZ	1.00	1748							一	1	T	一				┪					П			寸	ᅥ	十	
ZZZZZZ	1.00	1749					T		7	i		7		T	i			_				一			7	寸	_
ZZZZZZ	1.00	1750							ᅥ		一	寸		一				П							7	十	
ccv	1.00	1751								1		一		一	T										7	十	 x
CCB	1.00	1752		Ħ			_		1	i		一		1	寸		_							1	1	_	 x
ZZZZZZ	1.00	1753			T		1		i	寸	٦	一			寸							T	┪		ᅵ	十	
ZZZZZZ	1.00	1754					寸	一	寸	1	一	T			1		\dashv						1			十	_
ZZZZZZ	1.00	1755			T	i	1		i	T		1				一	T	i				一	1	7	ヿ	十	
ZZZZZZ		1756								\neg		寸		T		\neg						一	_			十	_
ZZZZZZ		1757				一	T			\neg		一			_		\exists	-	ᅦ			一			T	\dashv	_
ZZZZZZ	1.00	1758		i		j	\neg		寸	i	寸	7	7	7		一	一				一				寸	十	
ZZZZZZ	1.00	1759				i	i		寸	i	一	一	寸	i	_	ᅥ	ᅥ		i		7				寸	十	_
ZZZZZZ	1.00	1800			一			T		一	一	7	\neg					〓			ᅦ	一	7	7	7	十	
ZZZZZZ	1.00	-				T		1	_	+	1	1	7	ᅥ	7	_	\dashv	-	\neg	_	1	ᅥ	1	\dashv	寸	十	_
ZZZZZZ	1.00						_	\neg	_	\dashv	ᅥ	1	1	1	一	7	寸	_	1	<u> </u>	ᅥ	7	_	ᅥ	\dashv	+	_
CCV	1.00	1803			ᅥ	1	_		+	一	7	_	ᅥ	7	+	급	寸		1	_	-	\dashv	\dashv	\dashv	\dashv	+	x
ССВ	1.00						_		+	-	\dashv	+	\dashv	寸	十	┪	廿	-	ᅥ	- 	1	1	+	\dashv	十		x
GRANSTPSD53A	1.00			-		_	\dashv	-	一	\dashv	-	+	-	+	\dashv		+		-	_		\dashv	-{	\dashv			<u></u>

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ANALYSIS RUN LOG

Lab Name: \$TL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 7/31/2003 End Date: 7/31/2003

EPA													I	na	ly	te	s									
Sample No.	D/F	Time	% R	A	l _	A S	B A	B E	C D	C A	_	С 0	_		P B	ı	M N	H G	N	l	S E	A G		l '	z N	_
ZZZZZZ	1.00	1805														Г										
ZZZZZZ	1.00	1806																								Γ
ccv	1.00	1807					Ī														İ					х
CCB	1.00	1808					ĺ		Ī	П								İ								X

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 8/1/2003 End Date: 8/1/2003

EPA													7	lna	ly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	S	Α	N	T	٧	z	(
No.				L	В	s	A		D	A		0				G		G	I		E	G	A			И	
S0	1.00	1352			 	一																	П				3
S10	1.00	1353	-																							П	2
S30	1.00	1354								İ																П	3
S50	1.00	1355								ÌП																П	3
S100	1.00	1356		<u> </u>						П															П	П	:
S200 ·	1.00	1357								Ì																	2
s300	1.00	1358								П																П	2
ICV	1.00	1400								İ				i												\Box	2
ICB	1.00	1401																								П	2
LRS	1.00	1402		П									_										П		П	\Box	3
LRS	1.00	1403																								\sqcap	7
CCV	1.00	1404		П																							2
CCB	1.00	1405																									3
ZZZZZZ	1.00	1406								П																口	Ī
PBS0801A	1.00	1407										i														门	3
LCS0801A	1.00	1408								П									T	Ī						П	3
LCSD0801A	1.00	1409		П																Ī						\Box	2
ZZZZZZ	1.00	1410																								\Box	Γ
ZZZZZZ	1.00	1411	***************************************																	Ī						П	
ZZZZZZ	1.00	1412										i								ī						\Box	
ZZZZZZ	1.00	1413										i		i			İ	Ì		ī						П	_
ZZZZZZ	1.00	1414												Ī												\Box	Γ
ZZZZZZ	1.00	1414								i										Ī							
ccv	1.00	1415																Ì								\Box	3
CCB	1.00	1416										i		ī						T							2
ZZZZZZ	1.00	1417								i		i														\Box	
ZZZZZZ	1.00	1418								İ		一							ī								
ZZZZZZ	1.00	1419												i			Ì			Ī						Πİ	Γ
ZZZZZZ	1.00	1420	,							П								Ì	T	i						\Box	Γ
ZZZZZZ	1.00	1421								П				T					T	Ì						П	Γ
ZZZZZZ	1.00	1422												T						<u>_</u>							Г
ZZZZZZ	1.00	1423								П				ī					T	ī							Γ
ZZZZZZ	1.00	1424															寸	_		<u> </u>			l				_
ZZZZZZ	1.00	1425										i	\exists	1			\exists	1		<u> </u>							_
ZZZZZZ	1.00	1426										1		\neg	ᅦ		寸		7	<u>-</u>					П	一	Γ
CCV		1427										_		一			T	1		一							3
ССВ	_	1428		П						Н							寸	ᅥ	_	ᅥ							3
ZZZZZZ		1429									_	寸	ᅥ		ㅡ		_	-	ᅥ				i			一	_

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ANALYSIS RUN LOG

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 8/1/2003 End Date: 8/1/2003

EPA												7	Ana	ly	te	s										
Sample No.	D/F	Time	% R	A	-	A S	1	B E	C D	C A		C U	1		1		H G	i		S E	A G	N A	T L	V	Z N	C N
ZZZZZZ	1.00	1430										Г														Г
BLUESTPSD05	1.00	1431					Π		Ī	Ī		Π														X
BLUESTPSD05100	1.00	1432					Ī		i i	İ		ĺ				Ī				Ī						X
ccv	1.00	1433					Ī		Γ										Γ							X
CCB	1.00	1434			Ī					Ī																K

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 8/1/2003 End Date: 8/1/2003

EPA													1	\na	ly	te	s										
Sample No.	D/F	Time	% R	A	1	A		В	C	С		С				,	М								v	Z	
				L	В	s	A	E	D	A	R	0	U	E	В	G	N	G	I		E	G	A	L		N	
so		1707			<u> </u>	<u> </u>	<u> </u>	<u> </u>	_	Щ			L				$oxed{oxed}$			Ļ_							>
S10	1.00			<u>L</u>					L	Ш			L	Ш											L		<u> </u>
S30	1.00	1709			<u> </u>	<u> </u>						<u> </u>					<u></u>										>
S50	1.00	1710				<u>L</u>	L_										Ш				L						>
S100	1.00	1711			<u> </u>			L											L								K
S200	1.00	1712				<u> </u>																					X
s300	1.00	1713				<u> </u>				Ш																	X
ICV	1.00	1715																									X
ICB	1.00	1716																							П	П	Х
LRS	1.00	1717																							П	П	X
LRS	1.00	1718																							П		x
CCA	1.00	1719					Ì																			П	x
CCB	1.00	1720																							П	П	x
ZZZZZZ	1.00	1721		П																						П	
PBS0801B	1.00	1722		П							T														П		x
LCS0801B	1.00	1723									T				_											П	x
LCSD0801B	1.00	1724													7			Н									х
ZZZZZZ	1.00	1724													寸												Г
ZZZZZZ	1.00	1725												H	\dashv				_					၂	一	\dashv	
ZZZZZZ	1.00	1726									_				ᅥ								_	ᅱ			\vdash
ZZZZZZ	1.00	1727		Н						Н		_	\dashv		1			\dashv	_					\dashv	\dashv	\dashv	_
ZZZZZZ	1.00				_														-					-	\dashv	-	
ZZZZZZ	1.00	1729									ᅥ		┪	-	\dashv		\exists	_					 	\dashv	\dashv	\dashv	_
ccv	1.00	1730								Н	ᅥ				\dashv		\dashv		\dashv	_	_			\dashv	\dashv	_	Х
ССВ	1.00	1731			_	_					-	_	ᅱ			_		\dashv			-			-	ᅱ	\dashv	X
ZZZZZZ	1.00										_	-	\dashv			_						-		\dashv	\dashv		
ZZZZZZ	1.00	1733			\dashv										-	-		긤	-			\dashv	_	_	ᅱ	ᆛ	_
ZZZZZZ	1.00	1734											\dashv	-		-			4	_	-	_	_	-	႕	ᅱ	
ZZZZZZ		1735									┥	+		\dashv		_		\dashv	\dashv		-	ᅱ		\dashv	-	-	—
BLUESTPSD06		1736					닉	_		\vdash	{	_		\dashv	\dashv	_	ᆛ	\dashv	-	_	긕	-		-	ᆛ	ᆛ	-
BLUESTRSD08	 	1737					_		-	 		닉	\dashv	-	-			-	4		_	_			긕	긕	X
BLUESTPSD08		1738		-					_	 		_			+	-		4	\dashv	_		4	4	_	ᆛ		X
BLUESTPSD07		1739	1	4				_			-	4	ᅱ	4	4	\dashv	-		_	_	4				4	_	X
ZZZZZZ			I		_				Ц		_		-	_	4	4	4	ᆛ	_	4			_	4	4	4	X
ZZZZZZ		1740					_	_	_	 		ᆜ		_		_		4	4	_	_		_ļ	-	\dashv	-	
CCV		1741		_			_		_		_	4	_		_	_	_	_	_	_	4	_	_		4	4	
		1742					_		ļ	_ļ	4	_ļ	_ļ	_	_	_		4	_	_	_	_	_ļ	4	_	ᆛ	_X
CCB	1.00	1743														l			l]					Х

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 8/30/2003 End Date: 8/30/2003

EPA			_	_									<u> </u>	na	ly	e	s		_	_						_	_
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С			F	P	М	М	Н	N	K	S	A	И	T	V	Z	Γ
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	N	G	ᅵ		E	G	A	L		И	3
30	1.00	0107								П		Γ			x		Ī	ĺ			Х					П	Γ
s	1.00	0111			Ì				Î						Î			Ì								П	Γ
S	1.00	0114			Ì										х		Ì	Ī			х						Γ
S	1.00	0118													ĺ												Γ
LRS	1.00	0123													х				Ì		Х						Γ
LRS	1.00	0127						•							х						Х						Γ
LRS	1.00	0131													х						Х						Γ
ICV	1.00	0135											Ì		х		i				х						Γ
ICB	1.00	0139					l								х	Ī	Ī	Ì			х					П	Γ
ICSA	1.00	0143													х			Ì			х					П	Γ
ICSAB	1.00	0147								П					x		Ì				х					Π	Γ
CRI	1.00	0152										i	i		х	Ī	Ī				Х					П	Γ
CCV	1.00	0156													x		T				Х						Γ
ССВ	1.00	0200								П					х		ī				х						Γ
PBS0816C	1.00	0204													х						Х						Γ
LCSS0816C	1.00	0208													х						х						Γ
AJAXSTPSD04	1.00	0212								Π					х	ĺ	T				Х						Γ
AJAXPDSSD06	1.00	0216													х		Ī		ヿ		Х						Γ
AJAXSTRSD04	1.00	0220													x					Ī	х						Ī
AJAXSTSSD52	1.00	0224													х		T				х						Ī
GRANSTRSD54	1.00	0228													х						Х						Γ
GRANSTPSD54	1.00	0233													х			Ī		Ī	х						Γ
MAGNSTPSD03	1.00	0237													x		\Box				х						Γ
MAGNPDSSD11	1.00	0241													Х	Ī		Î	Ī		х						Γ
ccv	1.00	0245													х		T		T		х						Γ
ССВ	1.00	0249													x				Ī		х						Γ
MAGNSTPSD02	1.00	0253													x	T			Ī	j	х						Γ
MAGNSTPSD01	1.00	0257								П					х		Ţ	Ī		Ì	х						Γ
GRANSTPSD53	1.00	0301													x			T	T	Ī	х						Γ
GRANSTPSD53L	5.00	0305													x			Î		Î	х				Ī		Γ
GRANSTPSD53A	1.00	0310								П					x			Ī	Ī	Ī	х						ſ
GRANSTPSD53D	1.00	0314		П											x	T		T		Ì	х		j				Ī
GRANSTPSD53S	1.00	0318		П						П					х					Ī	х		Ī		一		Ī
GRANSTRSD53	1.00	0322		П											x	乛	İ	T			х					ī	Ī
PBS0816A	1.00	0326													T	一	寸	T	寸	i	х				一	T	Ī
LCSS0816A	1.00	0330													T	一	寸	1	1	Ì	х			\neg	T	\exists	Γ
ccv	1.00	0334								П		П			х	7	1	\exists	7	T	х		i		\neg	T	Ī
CCB	1.00	0338	***************************************			П				П		П	П		х	一	一	T	一		х		ᅥ	ᅥ	一	一	Г

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ANALYSIS RUN LOG

 Lab Name: STL BURLINGTON
 Contract: 23046

 Lab Code: STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCD002

 Instrument ID Number: TJA ICAP 6
 Method: P

Start Date: 8/30/2003 End Date: 8/30/2003

EPA													P	ma	1y	te	s								
Sample No.	D/F	Time	% R	A		A		В	C	С	ł	С					М	H		S		N		ı	Z
				L	В	s	A	E	D	A	R	0	ט	E	В	G	И	G	I	E	G	A	L		N
LCSDS0816A	1.00	0342																		Х					
BLUESTPSD05	1.00	0346																		х					丁
BLUESTPSD05100	1.00	0350			Ī						•									Х					丁
BLUESTPSD06	1.00	0355																		х					T
BLUESTRSD08	1.00	0359																		Х					寸
BLUESTPSD08	1.00	0403						•					İ		Ī					х					十
BLUESTPSD07	1.00	0407							·											х					十
ICSA	1.00	0411												ī	х					х					十
ICSAB	1.00	0415													х					х					十
CRI	1.00	0419													x					х				T	寸
CCV	1.00	0423													х					х			一		十
CCB	1.00	0428		i										一	х					х			一	\neg	十

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ANALYSIS RUN LOG

Lab Name: <u>\$TL BURLINGTON</u> Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/7/2003 End Date: 9/7/2003

	003																										
EPA													A	na	ly	tes	3										
Sample	D/F	Time	% R	A	S	A	В	В	С	С	С	С	С	F	P	М	М	Н	N	к	S	Α	N	Т	v	Z	С
No.				L	В	S	A	E	D	A	R	0	ט	E	В	G	N	G	I		E	G	A	L		N	И
s0	1.00	1452		Х	х	Х	х	Х	Х	Х	Х	Х	х	x	х	х	х	Ī	х	Х		Х	Х	х	х	Х	
S	1.00	1457		Х						х				x		x				Х			х				
S	1.00	1501			Х	х									х					Ī				х			Ī
S	1.00	1505					х	х	х		х	x	х				x		x	Ī		X			х	х	
LRS	1.00	1510		х	х	х	х	x	х	x	х	х	х	x	x	x	x	T	x	х		х	Х	x	х	Х	_
LRS	1.00	1515		х	х	х	х	x	х	Х	х	х	x	х	х	x	x		x	X		х	х	Х	х	Х	_
LRS	1.00	1521		х	х	х	Х	х	х	x	х	х	x	x	x	x	x		х	X		х	х	Х	х	х	_
ICV	1.00	1526		х	Х	х	х	х	х		$\overline{}$	х	х	хÌ	х	х	х		x	х				х		Х	
ICB	1.00	1531		х	х	х	х	х	х	х	х	х	х		x	x	x	1	х	x				х		х	
ICSA	1.00	1536		х	х	х	х	х	х	x	х		x	-+	x	x	x	i	x	x		_		х		Х	 .
ICSAB	1.00	1541		х	х	х	х	х	х	$\overline{}$	х	_	х	\rightarrow	х	x	x		х	x				х		х	_
CRI	1.00	1546		х	х	х	х	х	х			х	х	\rightarrow	х	x	x	T	х	х				х		х	;
CCV	1.00	1551		х	Х	х	х	х	х	х	х		х		x	x	\mathbf{x}		x	x				х		х	
ССВ	1.00	1556		х	х	х	х	x	х	$\overline{}$	х		x		x		\mathbf{x}	_	x	х			_	X	_	Х	
PBS0816C	1.00	1602		х	х	х	х	х	х	_	х	_	х	$\boldsymbol{-}$		_	$\frac{1}{x}$!	х	x				Х		х	
LCSS0816C	1.00	1607		х	х	х	х	х	х		x		x				\mathbf{x}		\mathbf{x}	x				х	_	х	<u> </u>
AJAXSTPSD04	1.00	1612		х	х	x	Х	Х	х		х	_	х	$\overline{}$		x	1	i	x	x	—			х	_	х	!
AJAXPDSSD06	1.00	1617		x	х	х	х	Х	х	_	х	:	х			x	\dashv	ᅥ	\mathbf{x}	х		х			х		!
AJAXSTRSD04	1.00	1622		x	х		х	х	х		х		x	\mathbf{x}^{\dagger}	<u> </u>	$\frac{1}{x}$	\dashv	ᅥ	x	х				х		х	—
AJAXSTSSD52	1.00	1627		х	х	х	х	х	х		х		x	_;		x	x	┪	х	х			_	_		Х	
GRANSTRSD54	1.00	1632		х	х	х	х	х	х	_	х		x :	- -		_	x		x	х				х		х	_
GRANSTPSD54	1.00	1637		х	х	x	х	х	х	_	х	_	x :	\rightarrow		x	x	寸	x	х		_		x		х	
MAGNSTPSD03	1.00	1642		х	х		х	х	х		х		x :	_	_	x	寸	1	\mathbf{x}	х				х		Х	_
MAGNPDSSD11	1.00	1647		х	х	х	х	х	х	_	х		\mathbf{x}	_		x	\mathbf{x}	7	\mathbf{x}	x	_			х		Х	
CCV	1.00	1652		х	х	х	х	х	x		х		x :		x :		\mathbf{x}		\mathbf{x}	x		_	_		_	Х	_
ССВ	1.00	1657		х	х	х	х	х	Х		x	_	x :	+	x i	_	\mathbf{x}	_	x	\mathbf{x}	بــــ	\mathbf{x}				Х	
MAGNSTPSD02	1.00	1702		х	х	x	х	х	х	_	X	$\overline{}$	x :	-		_	x	_	x	x	_			Х	_	х	—
MAGNSTPSD01	1.00	1707		х	\mathbf{x}	x	х	х	x		X	-	x :			-	x	1	x	x	_	х			Х	х	<u> </u>
GRANSTPSD53	1.00	1712		х	\mathbf{x}	х			_				x :				\mathbf{x}	7	\mathbf{x}	x				х	_	х	— i
GRANSTPSD53L		1717		х	_							_	x :			<	$\frac{1}{x}$	-	-	x	 !	!			х	х	¦
GRANSTPSD53A	1.00	1722		_	_	x			_			_	x :		1	_	$\frac{1}{x}$		\mathbf{x}	1		х		_	х		_
GRANSTPSD53D	1.00	1727			_			х					x :			$\boldsymbol{-}$	$ \mathbf{x} $	寸	$\frac{1}{x}$	x					х		_ ;
GRANSTPSD53S	1.00	1732		х	х	_		Х	_		x	_	x :	$\overline{}$	f	<u>.</u>	x	-	x	寸		х			_	_	-
GRANSTRSD53	<u>-</u>	1737		х		X	—	х			X		x :	_	-	- +	$\frac{x}{x}$			x	 ļ				X		-
PBS0816A	- 	1742		х	Х	;		_			X		x :				x	-+	-	x				х		x	
LCSS0816A		1747		Х	х	-	х	_		_	x		X :		x :	_	x	-+	-+	$\frac{1}{ \mathbf{x} }$							-
CCV	- 	1752			x		х	_	_				x :	<u></u>			x			x					х		— :
ССВ	<u>-</u>	1758				x			_				$\frac{\mathbf{\hat{x}}}{\mathbf{x}}$	_		<u>-</u> +	x		<u>-</u> +	x				_	X	-	

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ANALYSIS RUN LOG

 Lab Name: <u>\$TL BURLINGTON</u>
 Contract: <u>23046</u>

 Lab Code: <u>\$TLVT</u>
 Case No.: <u>23046</u>
 SAS No.: <u>SDG No.: GCD002</u>

 Instrument ID Number: <u>TJA ICAP 4</u>
 Method: <u>P</u>

Start Date: 9/7/2003 End Date: 9/7/2003

Start Date: <u>9/7/2</u>	2003							ŀ	inc	1 L	at	e:	9/		20	03			_						٠		
EPA													7	\na	ly	te	s										
Sample No.	D/F	Time	% R	A	S B	A S	ı	B E	С	1	1	C	C				M N			к	S E	A G	N A	-	v	Z	
LCSDS0816A	1.00	1803	<u> </u>	X	X	X	X			X		<u> </u>		X			X		X	X			<u> </u>	<u> </u>		1 [
BLUESTPSD05	1.00			x	X		<u> </u>	-	<u> </u>	X				х			X		X	X				x			
BLUESTPSD05100	1.00	1813		Х	Х	!	<u> </u>	!	ļ	X	X	•—		х			x		X	X				X			
BLUESTPSD06	1.00	1818		х	х	х	X	х	<u> </u>	X		х		X		_	Х		х	Х		_		X	_		
BLUESTRSD08	1.00	1823		х	х	х		х		х	Х	-		x	х	_	х		х	Х				X			
BLUESTPSD08	1.00	1828		х	х	х	x				Х		_	х	X ·	-	х		х	х				х			
BLUESTPSD07	1.00	1833		х	х	х	х	-		x				х	х	х	Х		х	Х	_			х		х	_
AJAXSTPSD04	10.00	1838															х						П			一十	_
AJAXPDSSD06	10.00	1843								Ī				х										X		х	_
AJAXSTRSD04	10.00	1848				х		İ		Ì							х										_
CCV	1.00	1853		x	х	х	х	х	х	х	х	х	х	х	х	x	х		х	х		х	х	х	x	х	_
ССВ	1.00	1858		х	х	Х	х	х	х	х		х		х	х	x	x		х	Х				х			_
MAGNSTPSD03	10.00	1903				х										╗	х									十	_
ICSA	1.00	1908		x	х	х	х	х	Х	Х	х	х	х	х	х	x	x		х	х		х	х	х	х	х	_
ICSAB	1.00	1913		Х	х	х	х	Х	Х	Х		x	_	-			х		х	х	_		х		х	-	_
CRI	1.00	1919		Х	х	х	х	Х	Х	х		x				_	x		х	x	\neg		х	_	х	х	_
CCV	1.00	1924		Х	Х	х	Х	Х	Х	Х	Х			х			х	İ	х	x		_	х		х	x	
ССВ	1.00	1929		x	х	х	х	Х	х	х	х			х			x		х	х		x	х		х	x	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/8/2003 End Date: 9/9/2003

EPA	· · · · · · · · · · · · · · · · · · ·		!										7	\n-	1	+											
Sample	D/F	Time	% R	<u> </u>		Γ=	г	-	-	T =1	_	_		\na						Γ.	Г.					,	_
No.	7,2			A L	S B	A S	A B	B E	D	C A	C R		C U			M G		H G	N		S E	A G	N A	L	V	Z N	
S0	1.00	2204		П													Х									Ė	Т
S	1.00	2209						i	Г	Ħ																	Γ
S	1.00	2213					Ī	Π		Ì											İ				<u> </u>		Γ
S	1.00	2217					Ī			Ì							х				i						Γ
LRS	1.00	2223															х				İ						
LRS	1.00	2228						İ		H							х										
LRS	1.00	2233															х										
ICV	1.00	2238								П							х										
ICB	1.00	2243	771														х										_
ICSA	1.00	2248								İ	T						х									П	_
ICSAB	1.00	2254								i				T			х					\neg					_
CRI	1.00	2259															х						_				_
CRILOW	1.00	2304	****														х	_					ᅥ				
CCV	1.00	2309								H							х			.				_			
ССВ	1.00	2314									ᅥ						x	T				ᅥ	1		_		_
ZZZZZZ	1.00	2319				T						一	寸	\neg			-			_			<u> </u>				_
ZZZZZZ	1.00	2324				_					_		寸	寸			ᅥ	-	_					_			_
ZZZZZZ	1.00	2329										T	1			Н	ᅥ					┪	_				
ZZZZZZ	5.00	2334				<u> </u>						_						-				_					-
ZZZZZZ	1.00	2339			\neg	ᅥ						ᅥ		1			_	_	_		\dashv			ᅦ	-		—
ZZZZZZ	1.00	2344			一	-					_	1	_	_	_		┪	\dashv	ᅥ		1	ᅱ	1			-	_
ZZZZZZ	5.00	2349			_	_			_		\dashv		1	寸	_	_	┪	ᅥ	┪	긤	ᅱ	ᅥ				\dashv	—
ZZZZZZ	1.00	2354		一	- 	一	_		_		目	7	寸	\dashv		ᅥ	-	\dashv	ᅥ		_	\dashv		ᅥ	-		_
ZZZZZZ	1.00	2359		_	一		寸		_			-	+	_		ᅥ	+	ᅦ	ᅥ		十	1	ᅥ	┪	┪	ᅥ	
ZZZZZZ	1.00	0004		_	\dashv		_			+		_	1	\dashv	-		+	ᄅ	ᅥ	-	ᅱ	+	_	ᅥ	ᅥ	\dashv	_
CCV	1.00	0009		寸	\neg		_		_	$-\dagger$	1	-	\dashv	_	_	\dashv	\mathbf{x}	ᅱ	\dashv	┪	ᅥ	-	1	ᅦ	ㅓ	ᅥ	
ССВ	1.00	0015		十		\dashv	-			+	寸		\dashv	+	ㅓ	\dashv	x	+	1	닉	-	\dashv	\dashv	ᅥ	ᅦ		
ZZZZZZ	5.00	0020		寸		ᆉ		ᅥ	_	十		<u> </u>	+	┪	-	_	7	ᅥ	ᅥ	_	\dashv	-	-+	\dashv	-	ᅥ	
ZZZZZZ	1.00	0025	I	一十		寸		ᅢ	 	_	1	\dashv	\dashv	+	ᅥ	┪	\dashv	\dashv	┪		\dashv	\dashv	\dashv	-	-	\dashv	_
ZZZZZZ	1.00	0030		1	寸	_	一	\dashv	ᅥ	$\overrightarrow{1}$	_	+	_	寸	_	\dashv	+	ᅥ	ᅥ	4	+	+	\dashv	\dashv	\dashv	-	
AJAXPDSSD06	100.00	0035		ᆉ	-	_	_		_	ᆉ	-	+	\dashv	-+	ᅥ	\dashv	x	\dashv	-	-		\dashv	ᅥ	-	-	-	- ¦
ZZZZZZ	1.00	0040		i	1	_ <u></u>	ᅱ		\dashv	\dashv	-+	ᆉ	+	十	-	-	+	十	ᅱ	+	\dashv	\dashv	ᅥ	\dashv	ᅥ		
ZZZZZZ		0045		\dashv			-	ᅥ	_	+	\dashv	十	\dashv	十	ᅱ	\dashv	十	\dashv	\dashv	+	+	+	+	\dashv		+	<u> </u>
ZZZZZZ	1.00	0050		十	\dashv	_	_		ᅥ	_{	\dashv	+	十	\dashv	\dashv	\dashv	+	\dashv	\dashv	닊	+	+	ᆉ	ᅥ	-	\dashv	-
ZZZZZZ		0055		+	-	_	-		廾	-	+	ᆛ	\dashv	\dashv	-	-	\dashv	\dashv	{		\dashv	ᆉ	_	\dashv	+	\dashv	
ZZZZZZ	5.00			\dashv	\dashv		+	\dashv	十	+	\dashv	+	\dashv	_			+	\dashv	+	극	+	\dashv	1	ᆛ	ᆛ	+	-
ZZZZZZ	1.00	0105		\dashv	\dashv	+	+		ᅥ	<u> </u>	\dashv	+	\dashv	ᆉ	ᅥ	\dashv	ᆉ	\dashv	┥	ᆛ	\dashv	+		\dashv	┥	\dashv	-¦
CCV	1.00	0110		\dashv	+	+	+	-	+	-	-+		\dashv	+	ᆛ		x	ᆛ	\dashv	+	+	\dashv		+	-	+	_¦

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD002

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/8/2003 End Date: 9/9/2003

EPA													P	lna	ly	te	s										
Sample No.	D/F	Time	% R	A L	S B	A S	B A	B E	C D	C A		l i	C U	F E	P B	M G	M N	H G	N I	1	S E	A G	N A	T L	V	Z N	C N
CCB	1.00	0115				·											Х	İ	Г		İ	İ	Πİ	Ť	ij	寸	_
ZZZZZZ	1.00	0120					i							•										T		寸	
ZZZZZZ	5.00	0125																				T			一	寸	_
ZZZZZZ	1.00	0130			<u> </u>										\exists											寸	
ZZZZZZ	1.00	0135																								寸	_
ZZZZZZ	5.00	0140																						寸	\exists	寸	
ZZZZZZ	1.00	0145										П												寸	.	\dashv	_
ICSA	1.00	0150															х							<u>-</u>	寸	寸	
ICSAB	1.00	0156															х								一	寸	
CRI	1.00	0201	**											7	T	T	х							\neg	一	寸	
CRILOW	1.00	0206												1	ᅥ		х							7	1	ヿ	_
CCV	1.00	0211												一	1	_	х						1	7	寸	寸	_
ССВ	1.00	0216								1	\dashv		┪	-	\dashv	_	х		_				十	\dashv	-	十	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/14/2003 End Date: 8/14/2003

EPA									,				A	na	ly	tes	5										
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	М	м	Н	N	K	s	A	И	T	v	z	С
No.				L	В	s	A	E	D		R		ט		В	G	N	G	I		E		A	L			N
s0	1.00	1016							·								T	X									_
S0.2	1.00	1018																x									Γ
SO.5	1.00	1019																Х									Γ
S1	1.00	1021																х									Γ
S5	1.00	1023													Ī			х									
S10	1.00	1025	,															x									_
ICV	1.00	1027														Î		x									
ICB	1.00	1029																х									_
CRA	1.00	1031								П					T	T	Ī	x	Ì				Ī				
CCV	1.00	1033								Π						Ī	Ì	x	T								_
ССВ	1.00	1035								Πİ								х									_
PBS0808B	1.00	1036												1		一	T	х	寸								_
LCSS0808B	1.00	1038					Ī							T	一		T	х					i				
ZZZZZZ	1.00	1040												T	T			T									
ZZZZZZ	1.00	1042								H				一				T									
ZZZZZZ	1.00	1044		П			l			П				一		寸		\exists	1								_
ZZZZZZ	1.00	1046								П		<u> </u>		_		寸		1	寸								_
ZZZZZZ	1.00	1048											1	一		7		一	1								_
ZZZZZZ	1.00	1049											1		一	寸	1	T		П							_
ZZZZZZ	1.00	1051		П						П	一			一	\neg	寸	寸										_
CCV	1.00	1053		П							T			7			1	x									_
ССВ	1.00	1055										<u>_</u>	1	i		寸	寸	x	1	T			<u> </u>				_
ZZZZZZ	1.00	1057											\neg	寸		寸	7	T	1								_
ZZZZZZ	1.00	1058									ᅥ	ᅦ	寸	T	_	十	\dashv	1	寸	ᅥ							
ZZZZZZ	1.00	1100											寸	一	一	┪	寸	十	7	ᅥ	\neg						
AJAXSTPSD04	1.00	1102											寸	1		\dashv	T	x	\dashv	٦							_
AJAXPDSSD06	1.00	1104											T	T	1	T	\dashv	\mathbf{x}	7								_
AJAXSTRSD04	1.00	1105										<u> </u>	\neg		T	T	T	х	1								
AJAXSTSSD52	1.00	1107										ᅵ	T	寸	一	寸		x	i								_
GRANSTRSD54	1.00	1109									1	一	T		寸	十	1	x	寸	_	\dashv		ᅵ			T	
GRANSTPSD54		1111		П							\dashv	寸	+	\dashv	\dashv	寸	寸	х	1	_	1	\neg	ᅥ		_	_	_
CCV	_	1113									寸	ᅥ	1	7	十	寸	十	x	\dashv	7	_		寸		_		
CCB		1115									1	_	\dashv	1	1	+	1	х	+	1			\neg				
MAGNSTPSD03		1116						\dashv	_				1	\dashv	\dashv	+	T	x	寸	ᅥ	7		寸	ᅥ			_
MAGNPDSSD11		1118				<u> </u>	Н		_		\dashv	寸	\dashv	寸	\dashv	十	十	x	\dashv	ᅥ	1	_	1	ᅥ	_	+	_
MAGNSTPSD02		1120						1	ر ا		1	1	\dashv	寸	\dashv	十	十	\mathbf{x}	十	ᅥ	-	\dashv	1	_		ᅱ	_
MAGNSTPSD01		1122				-					ᅥ	+	\dashv	十	\dashv	十	十	x	+	1	ᅥ	_	寸		\dashv	1	
GRANSTPSD53		1124									廿	_	+	\dashv	\dashv	\dashv	十	x	\dashv	-	ᅥ	ᅥ	+	-	_		_

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Leeman Hydra AA</u> Method: <u>CV</u>

Start Date: 8/14/2003 End Date: 8/14/2003

EPA												Z	lna	1y	te	s								
Sample No.	D/F	Time	% R	A	S B	A S	ı	B E	ı	C A	С 0			P B			H G		S E	•	N A		Z N	
GRANSTPSD53D	1.00	1126				-		T	┢	Ħ							Х	\vdash				T		Г
GRANSTPSD53S	1.00	1128								П							х	<u> </u>		,				Γ
GRANSTRSD53	1.00	1130					<u> </u>	İ	T								х		Π					Г
ZZZZZZ	1.00	1131								П									İ					Г
ccv	1.00	1133						<u> </u>			l						х		İ					Г
CCB	1.00	1135				İ		İ	İ	П						İ	х		Ì					Г

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ANALYSIS RUN LOG

 Lab Name: STL BURLINGTON
 Contract: 23046

 Lab Code: STLVT
 Case No.: 23046
 SAS No.: _______SDG No.: GCD002

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/14/2003 End Date: 8/14/2003

EPA												7	۱na	ly	te	s										
Sample No.	D/F	Time	% R	A L	S B	A S	B A	C D	C A		С 0				M G		H G	N	K	S E	A G	N A	1	V	Z N	ł
S0	1.00	1447															х						T	T	П	Г
S0.2	1.00	1449															х									Γ
S0.5	1.00	1451		<u> </u>													х									Г
S1	1.00	1453															х					П	T			Г
S5	1.00	1454															х					П				
S10	1.00	1456		Ì					П								х								一	Γ
ICV	1.00	1458		<u> </u>													х									
ICB	1.00	1500															х						i			Г
CRA	1.00	1501															х						T	\neg	一	
CCV	1.00	1503		İ													х							ᅦ	T	Г
CCB	1.00	1505															х					i	ヿ			Γ
PBS0813A .	1.00	1507						П									х	一					T			Π
LCSS0813A	1.00	1508															х						T			
LCSDS0813A	1.00	1510															х								一	
BLUESTPSD05	1.00	1512					L										х	寸					一		\neg	ī
BLUESTPSD05100	1.00	1514															х		П			i		T	\Box	Π
BLUESTPSD06	1.00	1516													T	T	х	_								<u> </u>
BLUESTRSD08	1.00	1518													T		х								一	<u> </u>
BLUESTPSD08	1.00	1519										П			7		х	\dashv				T	7	ᅥ	\neg	
BLUESTPSD07	1.00	1521		П				П								一	х	\neg					寸	T	十	
ccv	1.00	1523		H								Н				_	х	\dashv		ᅵ			_	ᅥ	十	
ССВ	1.00	1525		Н						_	ᅥ			i	-	\dashv	х	_		_		i	1	十	\dashv	_



Geotechnical Analysis Sample Data Summary Package

EASPAT SDG # GODOOZ

(assumed)

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT**

Date Received:

Project No.: 23046 Job No.: N/A Start Date: 04-Aug-03

GCD002 SDG(s):

ETR(s) #:

End Date: 15-Aug-03

94941

Lab ID: 535363

Sample ID: PSD04

Percent Solids: 83.8% Specific Gravity:

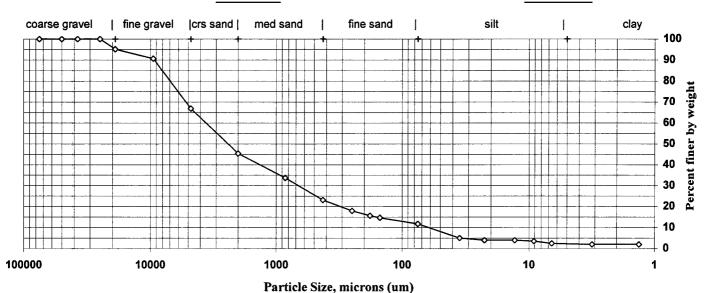
Non-soil mass:

22-Jul-03

2.65 0.1% Maximum Particle Size:

25 mm Shape (> #10): angular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	95.1	4.9
3/8 inch	9500	90.7	4.4
#4	4750	66.9	23.8
#10	2000	45.4	21.4
#20	850	33.7	11.8
#40	425	23.1	10.6
#60	250	18.0	5.1
#80	180	15.7	2.3
#100	150	14.7	1.0
#200	75	11.8	2.9
Hydrometer	35.2	5.0	6.8
	22.4	4.0	1.1
	13.0	4.0	0.0
	9.1	3.5	0.4
1	6.6	2.4	1.1
	3.1	2.0	0.4
V	1.3	2.0	0.0

Soil	Percent of
Classification	Total Sample
Gravel	33.1
Sand	55.1
Coarse Sand	21.4
Medium Sand	22.4
Fine Sand	11.3
Silt	9.4
Clay	2.4

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT** Project No.: Job No.:

23046 N/A

94941 ETR(s) #: GCD002 SDG(s):

Date Received: 22-Jul-03

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535364 Sample ID: SSD06

Percent Solids: 32.8%

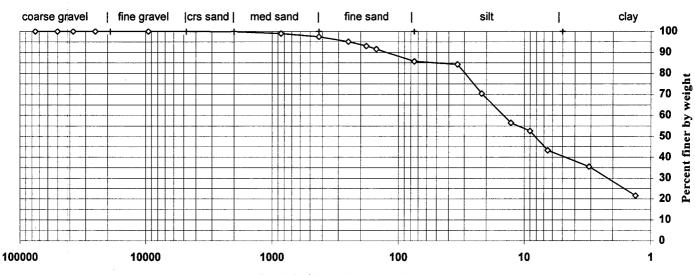
Non-soil mass:

2.65 Specific Gravity: (assumed) 0.9%

Maximum Particle Size: Crs sand

Shape (>#10): subrounded

Hardness (> #10): soft



Particle Size,	microns	(um)
----------------	---------	------

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.9	0.1
#20	850	99.0	0.9
#40	425	97.5	1.5
#60	250	95.1	2.4
#80	180	93.1	2.0
#100	150	91.6	1.4
#200	75	85.7	5.9
Hydrometer	33.9	84.3	1.4
	21.8	70.4	13.9
	12.8	56.5	13.9
	9.0	52.6	3.9
	6.5	43.3	9.3
	3.1	35.6	7.7
V	1.3	21.7	13.9

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	14.3
Coarse Sand	0.1
Medium Sand	2.4
Fine Sand	11.8
Silt	42.4
Clay	43.3

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT **Client Code:**

EASEAT

Project No.: Job No.:

23046 N/A

ETR(s) #: SDG(s): GCD002

94941

Date Received:

22-Jul-03

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535365

0.1%

Sample ID: RSD04

Percent Solids: 83.7%

Non-soil mass:

Specific Gravity: 2.65

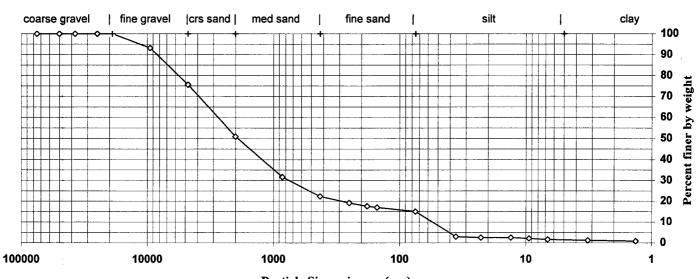
(assumed)

Maximum Particle Size: Shape (> #10):

19 mm angular

hard

Hardness (> #10):



Particle	Size,	microns	(um)

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	93.2	6.8
#4	4750	75.6	17.6
#10	2000	50.9	24.7
#20	850	31.6	19.3
#40	425	22.3	9.3
#60	250	19.2	3.1
#80	180	17.7	1.5
#100	150	17.1	0.6
#200	75	15.0	2.0
Hydrometer	35.9	3.0	12.0
	22.8	2.5	0.5
	13.2	2.5	0.0
i l	9.4	2.1	0.4
İ	6.7	1.6	0.5
	3.2	1.2	0.4
V	1.3	0.8	0.4

Soil	Percent of
Classification	Total Sample
Gravel	24.4
Sand	60.6
Coarse Sand	24.7
Medium Sand	28.6
Fine Sand	7.3
Silt	13.4
Clay	1.6

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT**

Project No.: Job No.:

(assumed)

23046 N/A

ETR(s) #: 94941

SDG(s): GCD002 End Date: 15-Aug-03

22-Jul-03 Date Received:

Start Date: 04-Aug-03

Sample ID: SSD52

Percent Solids:

Specific Gravity:

Non-soil mass:

Lab ID: 535366

26.6% 2.65

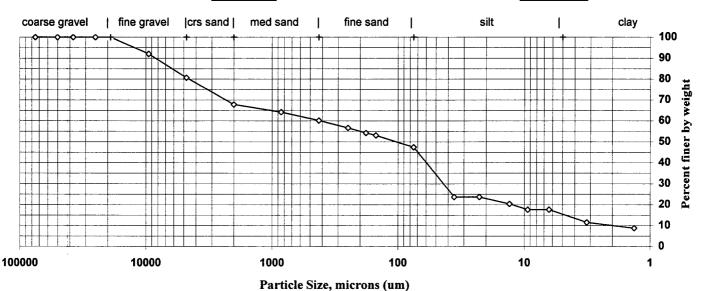
7.0%

Maximum Particle Size: 19 mm

Shape (> #10):

angular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	92.1	7.9
#4	4750	80.7	11.4
#10	2000	67.8	12.8
#20	850	64.2	3.6
#40	425	60.2	4.0
#60	250	56.6	3.6
#80	180	54.2	2.4
#100	150	53.0	1.2
#200	75	47.4	5.6
Hydrometer	35.7	23.7	23.7
	22.6	23.7	0.0
	13.1	20.4	3.3
	9.4	17.6	2.8
	6.4	17.6	0.0
	3.2	11.6	6.1
V	1.3	8.8	2.8

Soil	Percent of
Classification	Total Sample
Gravel	19.3
Sand	33.3
Coarse Sand	12.8
Medium Sand	7.6
Fine Sand	12.8
Silt	29.8
Clay	17.6

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT **EASEAT**

Project No.:

23046 N/A

94941 ETR(s) #: SDG(s): GCD002

Client Code: Date Received:

22-Jul-03

Job No.:

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535367

Sample ID: RSD54

Percent Solids: 81.2%

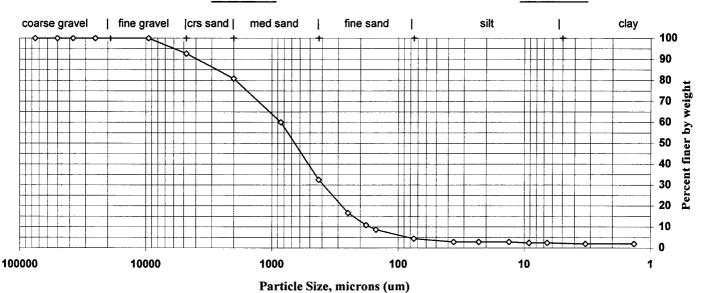
Specific Gravity:

2.65 (assumed) **Maximum Particle Size:** Shape (> #10):

9.5 mm angular

0.1% Non-soil mass:

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	92.6	7.4
#10	2000	80.8	11.8
#20	850	60.0	20.8
#40	425	32.5	27.5
#60	250	16.6	15.9
#80	180	10.9	5.7
#100	150	8.8	2.1
#200	75	4.4	4.4
Hydrometer	36.0	2.8	1.5
	22.8	2.8	0.0
	13.2	2.8	0.0
	9.1	2.4	0.5
	6.6	2.4	0.0
	3.3	1.9	0.5
V	1.3	1.9	0.0

Soil	Percent of
Classification	Total Sample
Gravel	7.4
Sand	88.3
Coarse Sand	11.8
Medium Sand	48.3
Fine Sand	28.1
Silt	2.0
Clay	2.4

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: **EASEAT** Client Code: **EASEAT** Project No.: Job No.:

23046 N/A

ETR(s) #: 94941 SDG(s): GCD002

Date Received:

22-Jul-03

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535368 Sample ID: PSD54

Percent Solids:

Specific Gravity:

70.4% 2.65

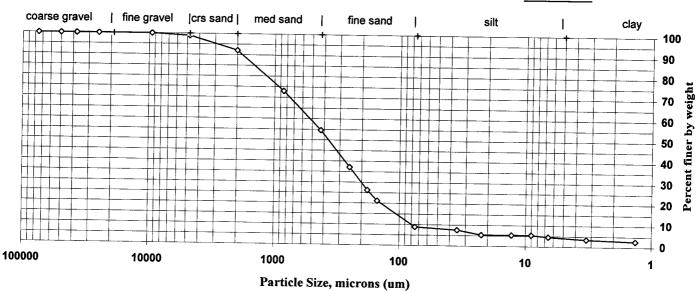
(assumed)

Maximum Particle Size: Shape (> #10):

9.5 mm angular

Non-soil mass: 0.1%

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.9	1.1
#10	2000	92.1	6.9
#20	850	73.0	19.1
#40	425	54.6	18.4
#60	250	37.1	17.5
#80	180	26.2	10.9
#100	150	21.2	5.0
#200	75	8.9	12.3
Hydrometer	35.0	7.5	1.4
11	22.4	5.4	2.2
	13.0	5.4	0.0
	9.0	5.4	0.0
1	6.6	4.6	0.7
	3.3	3.4	1.2
V	1.3	2.7	0.7

Soil	Percent of
Classification	Total Sample
Gravel	1.1
Sand	90.0
Coarse Sand	6.9
Medium Sand	37.5
Fine Sand	45.7
Silt	4.3
Clay	4.6

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code:

EASEAT

Project No.: 23046 N/A Job No.:

ETR(s) #:

94941 SDG(s): GCD002

Date Received:

22-Jul-03

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535369 Sample ID: PSD03

Percent Solids: 87.1%

2.65

Maximum Particle Size:

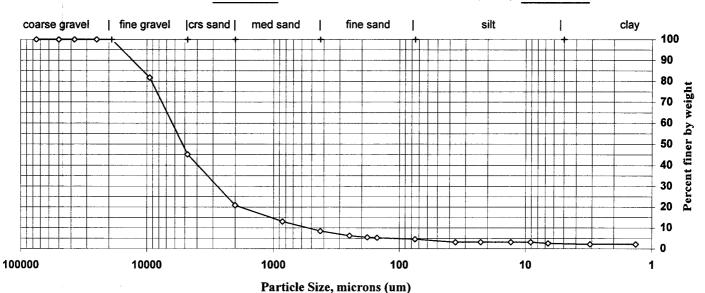
19 mm angular

Specific Gravity: 0.0% Non-soil mass:

(assumed)

Hardness (> #10):

Shape (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	81.7	18.3
#4	4750	45.2	36.5
#10	2000	20.8	24.3
#20	850	13.1	7.8
#40	425	8.5	4.6
#60	250	6.3	2.2
#80	180	5.5	0.8
#100	150	5.3	0.3
#200	75	4.6	0.6
Hydrometer	35.8	3.2	1.5
	22.6	3.2	0.0
	13.1	3.2	0.0
I	9.1	3.2	0.0
ı	6.6	2.6	0.6
I	3.1	2.2	0.4
V	1.3	2.2	0.0

Soil	Percent of
Classification	Total Sample
Gravel	54.8
Sand	40.6
Coarse Sand	24.3
Medium Sand	12.4
Fine Sand	3.8
Silt	2.0
Clay	2.6

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code:

EASEAT

Project No.:

23046 N/A

ETR(s) #: 94941 SDG(s): GCD002

Date Received:

22-Jul-03

Job No.: Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535370

Sample ID: SSD11

Percent Solids: 21.9%

Specific Gravity:

Non-soil mass:

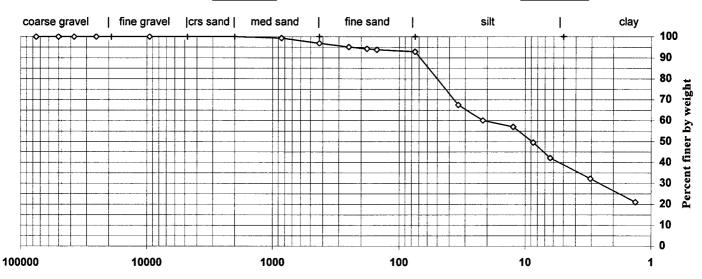
2.65 0.3%

(assumed)

Maximum Particle Size: Med sand

Shape (> #10):

N/A Hardness (> #10): N/A



Particle S	Size, micr	ons (um)
------------	------------	----------

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.3	0.7
#40	425	96.9	2.5
#60	250	95.1	1.7
#80	180	94.3	0.9
#100	150	93.8	0.4
#200	75	92.9	0.9
Hydrometer	33.9	67.5	25.4
i i	21.7	60.1	7.4
	12.5	57.0	3.1
	8.6	49.6	7.4
I	6.4	42.1	7.4
	3.1	32.2	9.9
V	1.3	21.1	11.2

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	7.1
Coarse Sand	0.0
Medium Sand	3.1
Fine Sand	3.9
Silt	50.8
Clay	42.1

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT** Date Received: 22-Jul-03

Specific Gravity:

Non-soil mass:

Project No.: 23046 N/A Job No.: Start Date: 04-Aug-03

ETR(s) #: 94941 SDG(s): GCD002

End Date: 15-Aug-03

Lab ID: 535371 Sample ID: PSD02

Percent Solids: 81.2%

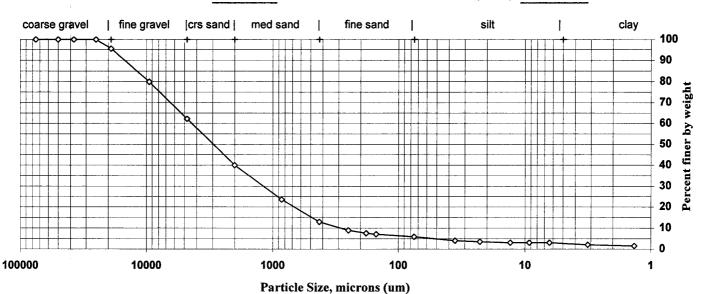
2.65 (assumed)

0.1%

Maximum Particle Size:

25 mm Shape (> #10): angular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	95.5	4.5
3/8 inch	9500	79.9	15.6
#4	4750	62.2	17.7
#10	2000	40.0	22.2
#20	850	23.5	16.5
#40	425	12.9	10.6
#60	250	9.0	4.0
#80	180	7.6	1.4
#100	150	7.1	0.5
#200	75	5.9	1.2
Hydrometer	35.7	4.1	1.9
	22.7	3.5	0.6
	13.1	3.0	0.5
1	9.2	3.0	0.0
1	6.4	3.0	0.0
	3.2	2.1	0.9
V	1.4	1.5	0.6

Soil	Percent of
Classification	Total Sample
Gravel	37.8
Sand	56.3
Coarse Sand	22.2
Medium Sand	27.1
Fine Sand	7.0
Silt	2.9
Clay	3.0

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT **Client Code:**

EASEAT

Project No.: Job No.:

23046 N/A

ETR(s) #:

94941 SDG(s): GCD002

22-Jul-03 Date Received:

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535372 Sample ID: PSD01

Percent Solids: 78.0%

Non-soil mass:

Specific Gravity: 2.65

0.0%

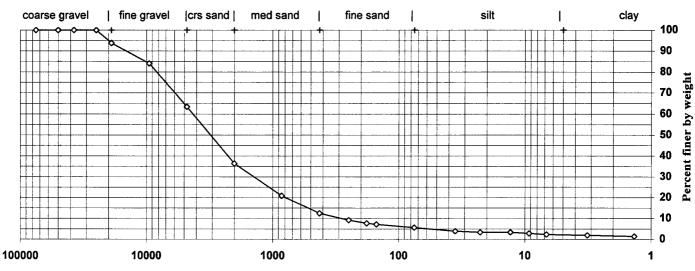
(assumed)

Maximum Particle Size: Shape (>#10):

25 mm angular

hard

Hardness (> #10):



Particle Size, microns (um)

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	93.8	6.2
3/8 inch	9500	84.0	9.8
#4	4750	63.4	20.6
#10	2000	36.4	27.0
#20	850	20.9	15.5
#40	425	12.5	8.4
#60	250	9.2	3.3
#80	180	7.7	1.4
#100	150	7.2	0.5
#200	75	5.7	1.5
Hydrometer	35.5	3.9	1.8
	22.5	3.4	0.5
	13.0	3.4	0.0
	9.2	2.8	0.5
	6.7	2.3	0.5
	3.2	1.9	0.4
V	1.4	1.4	0.5

Soil	Percent of
Classification	Total Sample
Gravel	36.6
Sand	57.7
Coarse Sand	27.0
Medium Sand	23.9
Fine Sand	6.8
Silt	3.4
Clay	2.3

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client Code:

Client: EASEAT **EASEAT**

Project No.: Job No.:

23046 N/A

ETR(s) #: SDG(s): GCD002

94941

Date Received:

22-Jul-03

Start Date: 04-Aug-03

End Date: 15-Aug-03

Lab ID: 535373

Sample ID: PSD53

Percent Solids: 81.1%

2.65

(assumed)

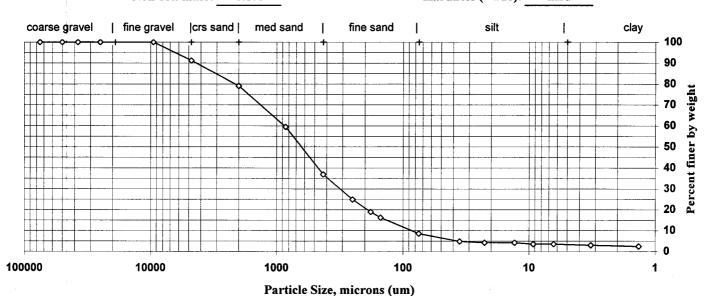
Maximum Particle Size: Shape (> #10):

9.5 mm

Specific Gravity: Non-soil mass: 0.1%

Hardness (> #10):

angular hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	91.2	8.8
#10	2000	79.0	12.2
#20	850	59.4	19.6
#40	425	36.9	22.5
#60	250	24.9	12.0
#80	180	19.0	5.9
#100	150	16.2	2.8
#200	75	8.6	7.6
Hydrometer	35.5	4.8	3.8
	22.5	4.2	0.7
	13.0	4.2	0.0
	9.2	3.5	0.7
	6.4	3.5	0.0
	3.3	3.0	0.5
V	1.4	2.4	0.5

Soil	Percent of
Classification	Total Sample
Gravel	8.8
Sand	82.6
Coarse Sand	12.2
Medium Sand	42.1
Fine Sand	28.3
Silt	5.1
Clay	3.5

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

0.0%

D2217 23046 Project No.:

Client: EASEAT ETR(s) #: 94941 **Client Code: EASEAT** N/A SDG(s): GCD002 Job No.: Date Received: 22-Jul-03 Start Date: 04-Aug-03 End Date: 15-Aug-03

> Sample ID: PSD53REP Lab ID: 535373DP

Percent Solids: 82.1% **Maximum Particle Size:**

2.65 Specific Gravity:

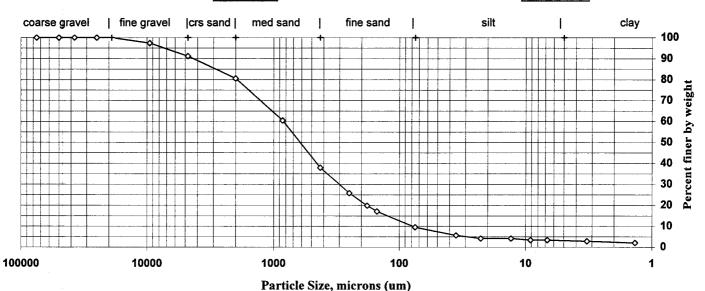
Shape (>#10):

19 mm angular

Non-soil mass:

(assumed)

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	97.4	2.6
#4	4750	91.2	6.2
#10	2000	80.6	10.6
#20	850	60.5	20.1
#40	425	38.0	22.6
#60	250	25.8	12.1
#80	180	19.9	6.0
#100	150	17.2	2.7
#200	75	9.6	7.6
Hydrometer	35.5	5.6	3.9
I	22.6	4.1	1.5
l	13.1	4.1	0.0
	9.1	3.3	0.8
:	6.7	3.3	0.0
	3.3	2.8	0.5
V	1.4	2.1	0.8

Soil	Percent of
Classification	Total Sample
Gravel	8.8
Sand	81.6
Coarse Sand	10.6
Medium Sand	42.6
Fine Sand	28.4
Silt	6.2
Clay	3.3

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT** Project No.: Job No.:

23046 N/A

94941 ETR(s) #: GCD002 SDG(s):

Date Received: 22-Jul-03 Start Date: 04-Aug-03

End Date: 15-Aug-03

19 mm

angular

Lab ID: 535374

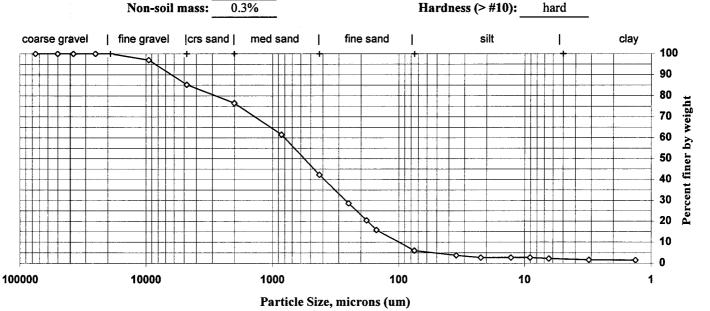
Sample ID: RSD53

Percent Solids: 76.3% Specific Gravity:

2.65 (assumed) **Maximum Particle Size:**

Shape (> #10):

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	97.0	3.0
#4	4750	85.3	11.7
#10	2000	76.5	8.7
#20	850	61.5	15.0
#40	425	42.3	19.3
#60	250	28.6	13.7
#80	180	20.5	8.1
#100	150	15.8	4.7
#200	75	6.0	9.8
Hydrometer	34.7	3.8	2.3
	22.2	2.7	1.1
l l	12.8	2.7	0.0
	9.1	2.7	0.0
	6.4	2.2	0.5
	3.1	1.6	0.6
V	1.3	1.5	0.1

Soil	Percent of
Classification	Total Sample
Gravel	14.7
Sand	79.2
Coarse Sand	8.7
Medium Sand	34.2
Fine Sand	36.2
Silt	3.8
Clay	2.2

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code:

EASEAT

Project No.: 23046 N/A Job No.:

ETR(s) #: SDG(s): GCD002

95000

Date Received:

24-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 535813 Sample ID: SD05

Percent Solids: 82.4%

(assumed)

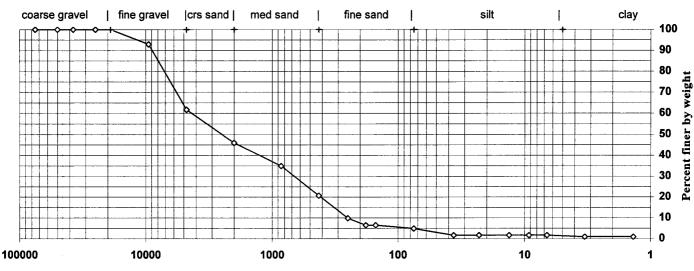
19 mm Maximum Particle Size:

Specific Gravity: 2.65

0.0% Non-soil mass:

Shape (> #10): subangular

Hardness (>#10): hard



Particle	Size,	microns	(um)
----------	-------	---------	------

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	93.0	7.0
#4	4750	61.7	31.3
#10	2000	45.9	15.8
#20	850	35.0	10.9
#40	425	20.7	14.2
#60	250	9.8	10.9
#80	180	6.5	3.3
#100	150	6.5	0.0
#200	75	4.9	1.6
Hydrometer	36.3	1.7	3.2
	23.0	1.7	0.0
1	13.3	1.7	0.0
	9.2	1.7	0.0
	6.6	1.7	0.0
	3.3	0.9	0.8
V	1.4	0.9	0.0

Soil	Percent of
Classification	Total Sample
Gravel	38.3
Sand	56.8
Coarse Sand	15.8
Medium Sand	25.2
Fine Sand	15.8
Silt	3.2
Clay	1.7

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217 23046

Client: EASEAT Client Code: **EASEAT**

Project No.: Job No.: ETR(s) #: 95000 SDG(s): GCD002

Date Received: 24-Jul-03

N/A Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 535814 Sample ID: SD05100

Percent Solids: 85.1%

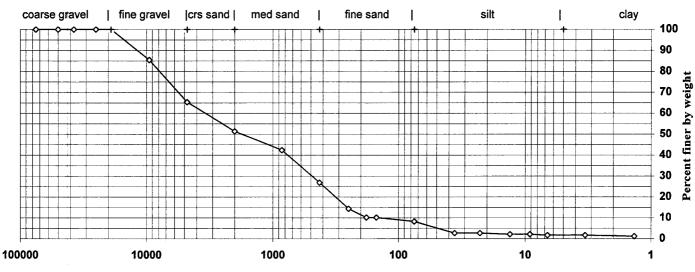
2.65

Maximum Particle Size:

19 mm Shape (>#10): subangular

Specific Gravity: (assumed) NA Non-soil mass:

Hardness (> #10): hard



Particle	Size,	microns	(um)
-----------------	-------	---------	------

Sieve	Particle	Percent	Incremental			
size	size, um	finer	percent			
3 inch	75000	100.0	0.0			
2 inch	50000	100.0	0.0			
1.5 inch	37500	100.0	0.0			
1 inch	25000	100.0	0.0			
3/4 inch	19000	100.0	0.0			
3/8 inch	9500	85.4	14.6			
#4	4750	65.3	20.1			
#10	2000	51.4	13.9 9.0 15.4 12.5			
#20	850	42.4				
#40	425	26.9				
#60	250	14.4				
#80	180	10.2	4.2			
#100	150	10.2	0.0			
#200	75	8.2	2.0			
Hydrometer	35.9	2.7	5.5			
1	22.7	2.7	0.0			
I	13.2	2.2	0.5			
I	9.2	2.2	0.0			
I	6.7	1.6	0.5			
	3.3	1.6	0.0			
V	1.4	1.2	0.4			

Soil	Percent of
Classification	Total Sample
Gravel	34.7
Sand	57.1
Coarse Sand	13.9
Medium Sand	24.5
Fine Sand	18.7
Silt	6.6
Clay	1.6

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT

Project No.:

23046 N/A

ETR(s) #: 95000

Client Code: Date Received: **EASEAT** 24-Jul-03

Job No.: Start Date: 12-Aug-03

SDG(s): GCD002 End Date: 22-Aug-03

Lab ID: 535815

Sample ID: SD06

Percent Solids:

84.7%

0.0%

Maximum Particle Size:

19 mm

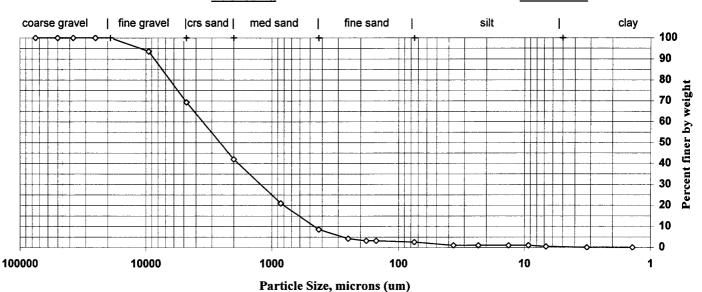
Specific Gravity: Non-soil mass:

2.65

(assumed)

Shape (> #10): subangular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental			
size	size, um	finer	percent			
3 inch	75000	100.0	0.0			
2 inch	50000	100.0	0.0			
1.5 inch	37500	100.0	0.0			
1 inch	25000	100.0	0.0			
3/4 inch	19000	100.0	0.0			
3/8 inch	9500	93.6	6.4			
#4	4750	69.4	24.2			
#10	2000	42.0	27.3			
#20	850	21.0	21.0 12.4 4.4			
#40	425	8.7				
#60	250	4.3				
#80	180	3.2	1.0			
#100	150	3.2	0.0			
#200	75	2.6	0.6			
Hydrometer	36.6	1.0	1.7			
	23.1	1.0	0.0			
	13.4	1.0	0.0			
1	9.3	1.0	0.0			
1	6.8	0.5	0.5			
1	3.2	0.0	0.5			
V	1.4	0.0	0.0			

Soil	Percent of
Classification	Total Sample
Gravel	30.6
Sand	66.7
Coarse Sand	27.3
Medium Sand	33.4
Fine Sand	6.0
Silt	2.1
Clay	0.5

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: Client Code: **EASEAT**

EASEAT

Project No.: Job No.:

23046 N/A

ETR(s) #: 95000 SDG(s): GCD002

24-Jul-03 Date Received:

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 535816 Sample ID: SD08

(assumed)

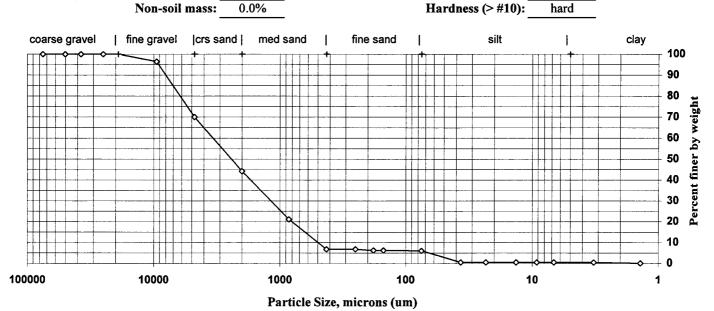
Percent Solids: 82.1%

Specific Gravity: 2.65 **Maximum Particle Size:**

19 mm

Shape (>#10): subangular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental		
size	size, um	finer	percent		
3 inch	75000	100.0	0.0		
2 inch	50000	100.0	0.0		
1.5 inch	37500	100.0	0.0		
1 inch	25000	100.0	0.0		
3/4 inch	19000	100.0	0.0		
3/8 inch	9500	96.4	3.6		
#4	4750	70.0	26.4		
#10	2000	44.2	25.8		
#20	850	21.1	23.1		
#40	425	6.8	14.3		
#60	250	6.8	0.0		
#80	180	6.3	0.5		
#100	150	6.3	0.0		
#200	75	6.0	0.3		
Hydrometer	36.7	0.6	5.5		
	23.2	0.6	0.0		
	13.4	0.6	0.0		
	9.2	0.6	0.0		
1	6.7	0.6	0.0		
	3.3	0.5	0.1		
V	1.4	0.1	0.4		

Soil	Percent of
Classification	Total Sample
Gravel	30.0
Sand	64.0
Coarse Sand	25.8
Medium Sand	37.4
Fine Sand	0.8
Silt	5.5
Clay	0.6

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217 23046

Client: **EASEAT** Client Code: **EASEAT**

Date Received:

24-Jul-03

Project No.: Job No.:

N/A Start Date: 12-Aug-03

ETR(s) #: 95000 SDG(s): GCD002 End Date: 22-Aug-03

Lab ID: 535818

Sample ID: SD07

Percent Solids: Specific Gravity:

Non-soil mass:

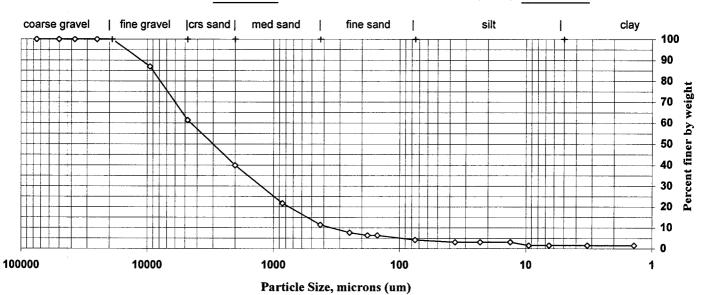
78.5% 2.65 0.1%

(assumed)

Maximum Particle Size: 19 mm

Shape (> #10): subrounded

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental			
size	size, um	finer	percent			
3 inch	75000	100.0	0.0			
2 inch	50000	100.0	0.0			
1.5 inch	37500	100.0	0.0			
1 inch	25000	100.0	0.0			
3/4 inch	19000	100.0	0.0			
3/8 inch	9500	86.9	13.1			
#4	4750	61.4	25.5			
#10	2000	39.9	21.5			
#20	850	21.7	18.2			
#40	425	11.4	10.3 3.8			
#60	250	7.6				
#80	180	6.3	1.3			
#100	150	6.3	0.0			
#200	75	4.2	2.1			
Hydrometer	36.3	3.1	1.1			
	22.9	3.1	0.0			
	13.2	3.1	0.0			
	9.4	1.6	1.6			
	6.5	1.6	0.0			
1	3.3	1.6	0.0			
V	1.4	1.6	0.0			

Soil	Percent of
Classification	Total Sample
Gravel	38.6
Sand	57.2
Coarse Sand	21.5
Medium Sand	28.5
Fine Sand	7.2
Silt	2.7
Clay	1.6

Dispersion Device: Mechanical mixer with

a metal paddle.

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCD003



September 17, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCD003

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 26, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client	Sample	Sample
	<u>Sample ID</u>	<u>Date</u>	<u>Matrix</u>
	Received: 07/26/03	ETR No: 95020	
536011 536012 536013 536013MS 536013DP 536014 536015 536016 536017 536018 536019 536020 536021	BLACSTRSD42 BLACPDSSD41 BLACSTPSD01 BLACSTPSD01MS BLACSTPSD01REP BLACADSSD11 BLACPDSSD43 BLACSTPSD02 BLACSTPSD02 BLACSTPSD02 BLACSTPSD03 BLUEPDSSD16 BLACPDSSD10	07/22/03 07/22/03 07/23/03 07/23/03 07/23/03 07/23/03 07/23/03 07/22/03 07/22/03 07/22/03 07/22/03	Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment Sediment
536022	BLACSTPSD04	07/22/03	Sediment
536023	BLACSTRSD04	07/22/03	Sediment

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample login is included in the Sample Handling section of this submittal.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-

A part of Severn Trent plc

of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Metals by 6010B:

The relative percent differences (RPDs) between the initial and duplicate analysis of sample BLACSTPSD01 for aluminum (34.8%), arsenic (57.6%), calcium (26.0%), chromium (51.6%), lead (22.0%), magnesium (77.8%) and vanadium (25.4%) were above the established control limit of ±20 percent. Corresponding sample results have been flagged with a "*" to denote this anomaly.

The recoveries of the following metals from the laboratory fortified aliquot of sample BLACSTPSD01 were outside of the laboratory established control limits of 75-125 percent: antimony (65.0%), nickel (142.3%) and selenium (56.6%). Sample results have been flagged with an "N" accordingly.

The following samples displayed a severe (greater negative than –20 ppb) for thallium: BLACPDSSD41 and BLUEPDSSD16. BLUEPDSSD16 also displayed a negative interference (-15.45 ppb) for silver.

Please note that due to a log-in error, all samples in this delivery group were analyzed for mercury outside of holding time. The client will not be charged for these analyses.

Total Organic Carbon by Lloyd Kahn:

The duplicate analysis of the sample designated BLACSTPSD01 yielded a relative percent difference of 45.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page _0360 ___.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

Sincerely,

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/itw/jmm

0001-B Last Alpha

SEVERN

STL Burlington208 South Park Drive, Suite 1
Colchester, VT 05446 Tel 802 655 1203 SEVERN TRENT LABORATORIES, INC.

Sediment 1 of /

CHAIN OF CUSTODY RECORD

Lab Use Only Due Date:	of coolers ceived (C°):	1 2 3 4 5 Custody Seal N / Y	Intact N / Y	Screened For Radioactivity			Lab/Sample ID (Lab Use Only)												collected at 1235;	for 10¢, 1AL + LN enys.	Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.	STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248
Analysis / / / / / / / / / / / / / / / / / /				5	100 plans	The Wall		XXX			XXXV	X X X	イメイン	X X X X	XXX		4XXX	Remark	10 10 to Grain Sig wheeted it	Time *0.4°C VMS for	Time Client's delivery of samples constitutes acceptance of terms and conditions contained in the Price Schedule.	oal Tube SL - Sludge 0 - Oil Plastic or other
4					dud	No/Type of Containers²	VOA A/G 250 P/O	× h	x 2	(Z+m)	7 7	7 7	7	7	X		{ 7	Date ,	XXX 04 24	O Date	Date	A - Air bag C - Charcoal Tube Glass wide mouth P/O - Plastic
Invoice to: Company:	Address:	Contact:	Phone:	·	pler's Signature	Water a		145	14-0	10-01 MS	D-11)- 43	D-07	2h-0	70-00	. D- 03	41-dss	Received by Signature	_	Received by: (Signature	Received by: (Signature	L - Liquid 250 ml -
	Sw. H. 200		- C/S			707	farks of Sam	BLAC-51-RSD-42	BLAC-PD-55p-	BLAC- ST- PSD-01	BLAC- AD-SSD-	BLAC-PD-SSD-	BUAC-ST- PSD-	BLAC-5T-PSD-42	BCAC- ST- RSD-	BUAC- ST- PSD-	BWE-PD-5	Date Time		Date	Date Time	W - Water S · Soil A/G · Amber / Or Glass 1 Liter
Report to: Company: 日9 折ないeeving	Address: 12011 Bel-Red Rd Bellevue, WA 981		Phone: 425-431-1480/		Sampler's Name Jen Kindwed	Proj. No. Project Name	Matrix' Date Time m a lidenti	, ×	×	又	50 Thy 1336 X BU	20 7h3 1436 X BU	人	ス	3D71221830 X BC	又	30 M22 1624 D BU	WM ≈ 03 Relinquished by: (Signature)		Relinquished by: (Signature)	Relinquished by: (Signature)	Matrix WW - Wastewater V Container VOA - 40 ml vial A SD > Sed I menty

* *

TRENT STL
SEVERN TRENT LABORATORIES, INC.

STL Burlington 208 South Park Drive, Suite 1 Colchester, VT 05446 Tel 802 655 1203

Sediment

201/

CHAIN OF CUSTODY RECORD

Lab Use Only Due Date:	Temp. of coolers when received (C*): 1 2 3 4 5	Custody Seal N / Y Intact N / Y	Screened For Radioactivity			Lab/Sample ID (Lab Use Only)										Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.	STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248
s en			_	Metal Las 1.512	was work		<u> </u>	X	<u> </u>				\vdash	Remarks		Client's delivery of samples constitutes acceptance of sterms and conditions contained in the Price Schedule.	- Siudge O - Oil
Analysis Requested				7°W	7Q[2Q[X X X	X X X	X X X					20 Lime 45	Time	Time	al Tube SL Plastic or other
;; \				Man	No/Type of Containers²	VOA A/G 250 P/O	ત	7	7					12/2 7/20/2	Date	Date	C - Charco P/O -
Invoice to:	Address:	Contact:		ampler's Signature	Shed		7 10	PSD-04	P- 04				-	Received by (Signature	Received by (Signature	Received by: (Signature	L - Liquid A - 250 ml - Glass w
				ag .	Cr Waterbea	of Sample(s)	7-555	•	1-RSP-				F	e III	Time	Time	W - Water S - Soil A/G - Amber / Or Glass 1 Liter Se& iMピット
hu	18 SW	2008				Identifying Marks of Sample(s)	BUAC-PD-550-	BLAC-ST	BLAC-ST				1	Date	Date	Date	W · Water A/G · Amber / Sed iman
Report to: Company: Eff Engineening	Address: 12011 Bd-Rea Bellevir, wy	Phone: 425 - 451 - 7400 Fax: 425 - 451 - 7800	Contract/ Quote:	Sampler's Name Don Norman	ect (೧೦೯೮	X	4	50 /41185 2 BI				Polinguiched Pur (Signature)	neiniquisired by. (olgliature)	Relinquished by: (Signature)	shed by: (Signatu	'Matrix WW - Wastewater *Container VOA - 40 ml vial



Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

BLACSTRSD42

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536011

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 72.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		72.5	
:					1	138	1310	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	130	1310	
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Sample Report Summary

Client Sample No.

BLACPDSSD41

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536012

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 22.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		22.7	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	441	3680	
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Sample Report Summary

Client Sample No.

BLACSTPSD01

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536013

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 77.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		77.9	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	129	1490	
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Sample Report Summary

Client Sample No.

BLACADSSD11

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536014

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 8.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		8.5	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	1180	40700	
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·								
	IN847	IN623 Solids, Percent TOC by Lloyd Kahn	IN623 Solids, Percent 08/05/03 IN847 TOC by Lloyd Kahn 07/31/03	IN847 TOC by Lloyd Kahn 07/31/03 BLKLK0731A	IN623 Solids, Percent 08/05/03 N/A % mg/Kg	IN623 Solids, Percent 08/05/03 N/A % 1.0	IN623 Solids, Percent 08/05/03 N/A % 1.0	IN623 Solids, Percent 08/05/03 N/A % 1.0 8.5 IN847 TOC by Lloyd Kahn 07/31/03 BLKLK0731A mg/Kg 1 1180 40700

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Sample Report Summary

Client Sample No.

BLACPDSSD43

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536015

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 71.5

	B	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
Method .	Parameter					- 1/L		Quu.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		71.5	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	140	32700	
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Sample Report Summary

Client Sample No.

BLACSTPSD02

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536016

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 70.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		70.9	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	142	557	
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Sample Report Summary

Client Sample No.

BLACSTPSD42

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536017

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 19.2

	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
	IN623	Solids, Percent	08/05/03	N/A	%	1.0		19.2	
	IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	521	111800	
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Sample Report Summary

Client Sample No.

BLACSTRSD02

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536018

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 77.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		77.4	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	130	4610	
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Sample Report Summary

Client Sample No.

BLACSTPSD03

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536019

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 79.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		79.6	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	126	1330	
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Sample Report Summary

Client Sample No.

BLUEPDSSD16

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536020

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 13.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		13.5	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	741	18100	
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Sample Report Summary

Client Sample No.

BLACPDSSD10

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536021

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 16.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		16.9	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	592	9960	
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Sample Report Summary

Client Sample No.

BLACSTPSD04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536022

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 74.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	08/05/03	N/A	%	1.0		74.9	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	134	697	
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Sample Report Summary

Client Sample No.

BLACSTRSD04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536023

Matrix: SEDIMENT

.Client: EASEAT

Date Received: 07/26/03

% Solids: 82.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	08/05/03	N/A	%	1.0		82.2	
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1	122	4090	
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Method Blank Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Conc.	Units	Qual.	DF	RL	Analytical Run Date	Analytical Batch
BLKLK0731A	IN847	TOC by Lloyd Kahn	100	mg/Kg	U	1	100	07/31/03	BLKLK0731A
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Matrix Spike Sample Report Summary

Client Sample No.

BLACSTPSD01MS

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536013MS

Matrix: SEDIMENT

Client: EASEAT ...

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Matrix S Resi Conc.	pike ilt Qual.	Samp Resi Conc.	ole ult Qual.	Spike Added	% Recovery*
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg			1490		184510.00	
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* Control Limit for Percent Recovery is 75-125%, unless otherwise specified.

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Duplicate Sample Report Summary

Client Sample No.

BLACSTPSD01REP

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 536013DP

Matrix: SEDIMENT

Client: EASEAT

Date Received: 07/26/03

% Solids: 76.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Samp Resu Conc.	ole ult Qual.	Dupli Sample Conc.	cate Result Qual.	RPD*
IN623	Solids, Percent	08/05/03	N/A	%	77.9		76.1		2
IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	1490		938		45
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* Control Limit for RPD is +/- 20%, unless otherwise specified.

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Laboratory Control Sample Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCD003

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date		Units			% Recovery
LCSLK0731A	IN847	TOC by Lloyd Kahn	07/31/03	BLKLK0731A	mg/Kg	8880	8500.0000	104.5
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.

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Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: STL BU	JRLINGTON Con	ntract: 23046	
ab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.:GCD003
SOW No.: ILMO4	.1		
	EPA Sample No.	Lab Sample ID.	
	BLACADSSD11	536014	
	BLACPDSSD10	536021	
	BLACPDSSD41	536012	
	BLACPDSSD43	536015	
	BLACSTPSD01	536013	
	BLACSTPSD01D	536013DP	
	BLACSTPSD01S	536013MS	
	BLACSTPSD02	536016	
:	BLACSTPSD03	536019	
	BLACSTPSD04	536022	
	BLACSTPSD42	536017	
	BLACSTRSD02	536017	
	BLACSTRSD04	536023	
	BLACSTRSD42	536011	
	BLUEPDSSD16	536020	
Ware ICD inton	element corrections applied?		Yos/No YES
	element corrections applied?		res/No
	round corrections applied? re raw data generated before		Yes/No YES
-	on of background corrections?		Yes/No NO
omments:			
	this data package is in compl		
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	ole data submitted on diskette Manager's designee, as verifi		
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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BL	ACAD	SSD	11		

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 2304	6 SAS No.:	SDG No.: GCD003
Matrix (so	il/water): SOIL	Lab Sample ID:	536014
Level (low,	/med): LOW	Date Received:	07/26/03

% Solids: 8,5

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	1720		*	P
7440-36-0	Antimony	9.7	B	и	P
7440-38-2	Arsenic	34.0		*	P
7440-39-3	Barium	227			P
7440-41-7	Beryllium	4.2	B		P
7440-43-9	Cadmium	5.1	B		P
7440-70-2	Calcium	1250	В	*	P
7440-47-3	Chromium	1.6	טן	*	P
7440-48-4	Cobalt	20.9	В		P
7440-50-8	Copper	81.9			P
7439-89-6	Iron	729000			P
7439-92-1	Lead	21.8		*	P
7439-95-4	Magnesium	457	В	*	P
7439-96-5	Manganese	982]	P
7439-97-6	Mercury	0.57			cv
7440-02-0	Nickel	159		И	P
7440-09-7	Potassium	440	שן		P
7782-49-2	Selenium	3.8	ט	И	P
7440-22-4	Silver	2.5	U	1	P
7440-23-5	Sodium	690	В		P
7440-28-0	Thallium	35.5			P
7440-62-2	Vanadium	4.8	В	*	P
7440-66-6	Zinc	2230		1	P

Color Before:	brown	Clarity	Before:		Texture:	medium
Color After:	yellow	Clarity	After:	clear	Artifacts:	
Comments:						
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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BLA	CPD	SSD	10	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	<u>STLVT</u> Case No.: <u>23046</u>	SAS No.:	SDG No.: GCD003
Matrix (so	il/water): SOIL	Lab Sample II): <u>536021</u>
Level (low,	/med): LOW	Date Received	1: 07/26/03

% Solids: 16.9

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	15300		*	P
7440-36-0	Antimony	7.4	B	N	P
7440-38-2	Arsenic	136		*	P
7440-39-3	Barium	9.1	B		P
7440-41-7	Beryllium	0.26	В	1	P
7440-43-9	Cadmium	1.4	В		P
7440-70-2	Calcium	108	טן	*	P
7440-47-3	Chromium	31.8	1	*	P
7440-48-4	Cobalt	1.2	שן		P
7440-50-8	Copper	1280			P
7439-89-6	Iron	531000	}		P
7439-92-1	Lead	19.4		 *	P
7439-95-4	Magnesium	106	U	*	P
7439-96-5	Manganese	110		1	P
7439-97-6	Mercury	1.4]	CV
7440-02-0	Nickel	1.2	טן	N	P
7440-09-7	Potassium	233	U		P
7782-49-2	Selenium	2.0	שן	N	P
7440-22-4	Silver	1.3	U	1 1	P
7440-23-5	Sodium	280	ען		P
7440-28-0	Thallium	22.3	1		P
7440-62-2	Vanadium	16.2	В	*	P
7440-66-6	Zinc	75.4			P

Color	Before:	brown	Clarity	Before:		Texture:	medium
Color	After:	yellow	Clarity	After:	clear	Artifacts:	
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACPDSS	T 41
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Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD003
Matrix (so:	il/water): SOIL	Lab Sample ID:	536012
Level (low,	/med): LOW	Date Received:	07/26/03

% Solids: 22.7

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	40900		*	P
7440-36-0	Antimony	2.9	B	и	P
7440-38-2	Arsenic	110		*	P
7440-39-3	Barium '	837	I	1	P
7440-41-7	Beryllium	1.6	В		P
7440-43-9	Cadmium	21.2	1		P
7440~70-2	Calcium	6880	1	*	P
7440-47-3	Chromium	144	1	*	P
7440-48-4	Cobalt	283	Ī	1	P
7440-50-8	Copper	1080			P
7439-89-6	Iron	70000		1	P
7439-92-1	Lead	11.8		 *	P
7439-95-4	Magnesium	15400		*	P
7439-96-5	Manganese	32600			P
7439-97-6	Mercury	0.25	1		cv
7440-02-0	Nickel	1810		N	P
7440-09-7	Potassium	2400			P
7782-49-2	Selenium	9.0		N	P
7440-22-4	Silver	0.97	ע		P
7440-23-5	Sodium	463	В		P
7440-28-0	Thallium	2.5	U		P
7440-62-2	Vanadium	110		*	P
7440-66-6	Zinc	1310			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACPDSSD4	3

Lab Name:	STL BURLINGTON		Contract:	23046		
Lab Code:	STLVT C	ase No.: 23046	SAS No.:		SDG No.:	GCD003
Matrix (so	il/water): SOI	L.	Lab	Sample ID:	536015	
Level (low,	/med): LOW		Dat	e Received:	07/26/03	

% Solids: 71.5

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	1440	İ	*	P
7440-36-0	Antimony	0.64	שן	И	P
7440-38-2	Arsenic	0.81	В	*	P
7440-39-3	Barium	12.4	В		P
7440-41-7	Beryllium	0.15	В		P
7440-43-9	Cadmium	0.27	В		P
7440-70-2	Calcium	999		*	P
7440-47-3	Chromium	4.4		*	P
7440-48-4	Cobalt	6.0	В		P
7440-50-8	Copper	49.3	1		P
7439-89-6	Iron	4550		,	P
7439-92-1	Lead	2.4		*	P
7439-95-4	Magnesium	808		*	P
7439-96-5	Manganese	492			P
7439-97-6	Mercury	0.069	1	1	cv
7440-02-0	Nickel	72.9	1	N	P
7440-09-7	Potassium	160	В		P
7782-49-2	Selenium	0.47	U	N	P
7440-22-4	Silver	0.30	U	1	P
7440-23-5	Sodium	155	В	1	P
7440-28-0	Thallium	0.78	טן		P
7440-62-2	Vanadium	2.9	В	*	P
7440-66-6	Zinc	60.9			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTPSD01	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD003
Matrix (soil/water): SOIL	Lab Sample ID:	536013
Level (low/med): LOW	Date Received:	07/26/03

% Solids: 77.9

· CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	12400		*	P
7440-36-0	Antimony	2.1	В	N	P
7440-38-2	Arsenic	34.7		*	P
7440-39-3	Barium	67.5			P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium	0.33	B		P
7440-70-2	Calcium	3120		*	P
7440-47-3	Chromium	102		*	P
7440-48-4	Cobalt	20.0			P
7440-50-8	Copper	30.0			P
7439-89-6	Iron	30000			P
7439-92-1	Lead	3.3		*	P
7439-95-4	Magnesium	10400		*	P
7439-96-5	Manganese	543			P
7439-97-6	Mercury	0.019	טן		CV
7440-02-0	Nickel	131		N	P
7440-09-7	Potassium	809			P
7782-49-2	Selenium	0.50	В	N	P
7440-22-4	Silver	0.27	ען		P
7440-23-5	Sodium	277	В		P
7440-28-0	Thallium	0.71	טן		P
7440-62-2	Vanadium	58.5		*	P
7440-66-6	Zinc	55.4			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTP	

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD003

 Matrix (soil/water):
 SOIL
 Lab Sample ID:
 536016

 Level (low/med):
 Low
 Date Received:
 07/26/03

% Solids: 70.9

CAS No:	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	17300	Π	*	P
7440-36-0	Antimony	2.5	В	И	P
7440-38-2	Arsenic	52.6	I	*	P
7440-39-3	Barium	102		·	P
7440-41-7	Beryllium	0.40	В		P
7440-43-9	Cadmium	0.48	В		P
7440-70-2	Calcium	4170		*	P
7440-47-3	Chromium	193	Ī	*	P
7440-48-4	Cobalt	32.8	}	1	P
7440-50-8	Copper	37.2	1		P
7439-89-6	Iron	36600			P
7439-92-1	Lead	4.9	I	*	P
7439-95-4	Magnesium	21500		*	P
7439-96-5	Manganese	873			P
7439-97-6	Mercury	0.023	שן		CV
7440-02-0	Nickel	224	1	N	P
7440-09-7	Potassium	904	1		P
7782-49-2	Selenium	0.68		И	P
7440-22-4	Silver	0.30	שן		P
7440-23-5	Sodium	217	В	1	P
7440-28-0	Thallium	0.77	U		P
7440-62-2	Vanadium	71.9		*	P
7440-66-6	Zinc	66.8			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCD003
Matrix (soil/water): SOIL	Lab Sample ID:	536019
Level (low/med): LOW	Date Received:	07/26/03

% Solids: 79.6

CAS No.	·· Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	12000		*	P
7440-36-0	Antimony	1.4	В	И	P
7440-38-2	Arsenic	19.2	1	*	P
7440-39-3	Barium	68.1	1]	P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	0.27	В		P
7440-70-2	Calcium	3170		*	P
7440-47-3	Chromium	122	1	*	P
7440-48-4	Cobalt	21.0			P
7440-50-8	Copper	38.9	1		P
7439-89-6	Iron	25900	1		P
7439-92-1	Lead	3.2		*	P
7439-95-4	Magnesium	15200		*	P
7439-96-5	Manganese	638			P
7439-97-6	Mercury	0.026	В		CV
7440-02-0	Nickel	138	1	N	P
7440-09-7	Potassium	937			P
7782-49-2	Selenium	0.40	טן	N	P
7440-22-4	Silver	0.26	טן		P
7440-23-5	Sodium	265	В		P
7440-28-0	Thallium	0.68	טן		P
7440-62-2	Vanadium	49.4	I	*	P
7440-66-6	Zinc	50.7		1	P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					- 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 230		SDG No.: GCD003
Matrix (soil/water): SOIL	Lab Sample ID:	536022
Level (low/med): LOW	Date Received:	07/26/03

% Solids: 74.9

CAS No.	Analyte ·	Concentration	С	Ω	М
7429-90-5	Aluminum	7930		*	P
7440-36-0	Antimony	0.75	В	N	P
7440-38-2	Arsenic	24.6	I	*	P
7440-39-3	Barium	112	Ī		P
7440-41-7	Beryllium	0.25	В		P
7440-43-9	Cadmium	0.39	B		P
7440-70-2	Calcium	2700		*	P
7440-47-3	Chromium	65.7	I	*	P
7440-48-4	Cobalt	20.8			P
7440-50-8	Copper	23.8			P
7439-89-6	Iron	18800	T	ł	P
7439-92-1	Lead	3.2]	*	P
7439-95-4	Magnesium	6510	Ī	*	P
7439-96-5	Manganese	1620			P
7439-97-6	Mercury	0.022	טן		CV
7440-02-0	Nickel	99.8		N	P
7440-09-7	Potassium	710			P
7782-49-2	Selenium	0.88		И	P
7440-22-4	Silver	0.27	U		P
7440-23-5	Sodium	308	B		P
7440-28-0	Thallium	0.70	U		P
7440-62-2	Vanadium	28.8		*	P
7440-66-6	Zinc	37.7			P

Color Be	efore:	brown	Clarity Before:		Texture:	medium
Color Af	fter:	yellow	Clarity After:	clear	Artifacts:	
Comments	s:					
	: <u> </u>					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

					-
BLA	CS	TP	SD	42	

Lab Name:	STL BURLING	GTON		Contract: 23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCD003
Matrix (so	il/water):	SOIL		Lab Sample ID:	536017
Level (low,	/med): <u>LO</u>	W		Date Received:	07/26/03

% Solids: 19.2

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	42700		*	P
7440-36-0	Antimony	5.9	В	N	P
7440-38-2	Arsenic	55.7		*	P
7440-39-3	Barium	405			P
7440-41-7	Beryllium	1.2	В		P
7440-43-9	Cadmium	4.2]	P
7440-70-2	Calcium	6750		 *	P
7440-47-3	Chromium	191		 *	P
7440-48-4	Cobalt	85.5			P
7440-50-8	Copper	323			P
7439-89-6	Iron	61100			P
7439-92-1	Lead	11.6		*	P
7439-95-4	Magnesium	18400		*	P
7439-96-5	Manganese	3090	Ī		P
7439-97-6	Mercury	0.35]	CV
7440-02-0	Nickel	503		N	P
7440-09-7	Potassium	2650			P
7782-49-2	Selenium	2.9		N	P
7440-22-4	Silver	2.6	В	1	P
7440-23-5	Sodium	516	В		P
7440-28-0	Thallium	2.5	U		P
7440-62-2	Vanadium	106		*	P
7440-66-6	Zinc	556			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	<u>yellow</u>	Clarity After:	clear	Artifacts:	
Comments:	- · · · · · ·				
: : :					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTRS	D02	

Lab Name:	STL BURLINGTON		Contract:	23046	<u> </u>	
Lab Code:	STLVT Ca	se No.: 2304	SAS No.		SDG No.:	GCD003
Matrix (so:	il/water): SOII	1	Lal	Sample ID:	536018	
Level (low,	med): LOW		Da	ce Received:	07/26/03	

% Solids: 77.4

		· · · · · · · · · · · · · · · · · · ·			
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	16700		*	P
7440-36-0	Antimony	2.1	В	N	P
7440-38-2	Arsenic	54.4		*	P
7440-39-3	Barium	106			P
7440-41-7	Beryllium	0.38	В		P
7440-43-9	Cadmium	0.59	В		P
7440-70-2	Calcium	4280		 *	P
7440-47-3	Chromium	145	<u> </u>	*	P
7440-48-4	Cobalt	34.4	Ī		P
7440-50-8	Copper	49.8			P
7439-89-6	Iron	41700			P
7439-92-1	Lead	1.4		*	P
7439-95-4	Magnesium	15100	1	*	P
7439-96-5	Manganese	1010	1]	P
7439-97-6	Mercury	0.019	טן		cv
7440-02-0	Nickel	172		N	P
7440-09-7	Potassium	856			P
7782-49-2	Selenium	0.70		N	P
7440-22-4	Silver	0.26	U		P
7440-23-5	Sodium	152	В		P
7440-28-0	Thallium	0.86	В		P
7440-62-2	Vanadium	67.3		*	P
7440-66-6	Zinc	78.2			P

Color Before:	brown	Clarity	Before:		Texture:	medium
Color After:	yellow	Clarity	After:	clear	Artifacts:	
Comments:						
-						

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

В	LACSTRSD04	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 2304	8AS No.:	SDG No.: GCD003
Matrix (soil/water): SOIL	Lab Sample ID:	536023
Level (low/med): LOW	Date Received:	07/26/03

% Solids: 82.2

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	10500		*	P
7440-36-0	Antimony	1.5	B	N	P
7440-38-2	Arsenic	24.2		*	P
7440-39-3	Barium	70.3	1		P
7440-41-7	Beryllium	0.26	В		P
7440~43-9	Cadmium	0.32	B		P
7440-70-2	Calcium	2940]	*	P
7440-47-3	Chromium	87.0		*	P
7440-48-4	Cobalt	18.9			P
7440-50-8	Copper	27.9			P
7439-89-6	Iron	21700			P
7439-92-1	Lead	3.1		*	P
7439-95-4	Magnesium	10900		*	P
7439-96-5	Manganese	600		1	P
7439-97-6	Mercury	0.019	שן		CV
7440-02-0	Nickel	124	Ī	N	P
7440-09-7	Potassium	833			P
7782-49-2	Selenium	0.80		N	P
7440-22-4	Silver	0.27	U		P
7440-23-5	Sodium	292	В		P
7440-28-0	Thallium	0.69	ט		P
7440-62-2	Vanadium	36.7		*	P
7440-66-6	Zinc	50.0			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLA	CS:	rrsi	142	

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Lab Sample ID: 536011

Level (low/med): LOW Date Received: 07/26/03

% Solids: 72.5

CAS No. Analyte Concentration C Q M 7429-90-5 Aluminum 14300 * P 7440-36-0 Antimony 1.3 B N P 7440-38-2 Arsenic 30.9 * P 7440-39-3 Barium 89.8 P 7440-41-7 Beryllium 0.32 B P 7440-41-7 Beryllium 0.50 B P 7440-43-9 Cadmium 0.50 B P 7440-70-2 Calcium 4560 * P 7440-47-3 Chromium 105 * P 7440-48-4 Cobalt 27.2 P 7440-50-8 Copper 42.6 P 7439-89-6 Iron 33300 P 7439-92-1 Lead 3.1 * P 7439-95-4 Magnesium 20200 * P 7439-96-5 Marcury 0.023 U						
T440-36-0	CAS No.	Analyte	Concentration	С	Q	М
T440-38-2	7429-90-5	Aluminum	14300		*	P
7440-39-3 Barium 89.8 P 7440-41-7 Beryllium 0.32 B P 7440-43-9 Cadmium 0.50 B P 7440-70-2 Calcium 4560 * P 7440-47-3 Chromium 105 * P 7440-48-4 Cobalt 27.2 P 7440-50-8 Copper 42.6 P 7439-89-6 Iron 33300 P 7439-92-1 Lead 3.1 * P 7439-95-4 Magnesium 20200 * P 7439-96-5 Manganese 1090 P 7440-02-0 Nickel 215 N P 7440-02-0 Nickel 215 N P 7440-22-4 Silver 0.29 U P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P 7440-22-2 Vanad	7440-36-0	Antimony	1.3	В	N	P
7440-41-7 Beryllium 0.32 B P	7440-38-2	Arsenic	30.9		*	P
7440-43-9 Cadmium 0.50 B P	7440-39-3	Barium	89.8	1		P
7440-70-2	7440-41-7	Beryllium	0.32	В		P
7440-47-3 Chromium 105 * P 7440-48-4 Cobalt 27.2 P 7440-50-8 Copper 42.6 P 7439-89-6 Iron 33300 P 7439-92-1 Lead 3.1 * P 7439-95-4 Magnesium 20200 * P 7439-96-5 Manganese 1090 P 7449-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P 7440-22-4 Silver 0.29 U N P 7440-23-5 Sodium 532 B P 7440-28-0 Thallium 0.76 U P 7440-62-2 Vanadium 58.5 * P	7440-43-9	Cadmium	0.50	В		P
7440-48-4	7440-70-2	Calcium	4560		*	P
7440-50-8 Copper 42.6 P 7439-89-6 Iron 33300 P 7439-92-1 Lead 3.1 * P 7439-95-4 Magnesium 20200 * P 7439-96-5 Manganese 1090 P 7439-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P 7782-49-2 Selenium 0.45 U N P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P 7440-28-0 Thallium 0.76 U P 7440-62-2 Vanadium 58.5 * P	7440-47-3	Chromium	105		*	P
7439-89-6 Iron 33300 P 7439-92-1 Lead 3.1 * P 7439-95-4 Magnesium 20200 * P 7439-96-5 Manganese 1090 P 7439-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P 7782-49-2 Selenium 0.45 U N P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P 7440-28-0 Thallium 0.76 U P 7440-62-2 Vanadium 58.5 * P	7440-48-4	Cobalt	27.2			P
7439-92-1 Lead 3.1 * P 7439-95-4 Magnesium 20200 * P 7439-96-5 Manganese 1090 P 7439-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P 7782-49-2 Selenium 0.45 U N P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P 7440-28-0 Thallium 0.76 U P 7440-62-2 Vanadium 58.5 * P	7440-50-8	Copper	42.6			P
7439-95-4 Magnesium 20200 * P 7439-96-5 Manganese 1090 P 7439-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P 7782-49-2 Selenium 0.45 U N P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P 7440-28-0 Thallium 0.76 U P 7440-62-2 Vanadium 58.5 * P	7439-89-6	Iron	33300			P
7439-96-5 Manganese 1090 P 7439-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P 7782-49-2 Selenium 0.45 U N P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P 7440-28-0 Thallium 0.76 U P 7440-62-2 Vanadium 58.5 * P	7439-92-1	Lead	3.1	Ī	*	P
7439-97-6 Mercury 0.023 U CV 7440-02-0 Nickel 215 N P 7440-09-7 Potassium 888 P P 7440-22-4 Silver 0.29 U P P 7440-23-5 Sodium 532 B P P 7440-28-0 Thallium 0.76 U P P P P P P P P P	7439-95-4	Magnesium	20200		*	P
7440-02-0	7439-96-5	Manganese	1090			P
7440-09-7	7439-97-6	Mercury	0.023	שן		cv
7782-49-2 Selenium 0.45 U N P 7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P	7440-02-0	Nickel	215	1	N	P
7440-22-4 Silver 0.29 U P 7440-23-5 Sodium 532 B P	7440-09-7	Potassium	888			P
7440-23-5 Sodium	7782-49-2	Selenium	0.45	U	N	P
7440-28-0	7440-22-4	Silver	0.29	U		P
7440-62-2 Vanadium 58.5 * P	7440-23-5	Sodium	532	В		P
	7440-28-0	Thallium	0.76	U		P
7440-66-6 Zinc 85.2 P	7440-62-2	Vanadium	58.5		*	P
	7440-66-6	Zinc	85.2			P

Color Before	e: brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:			·		
			<u> </u>		

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

	!		BLUEPDSSD16
Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCD003

Matrix (soil/water): SOIL Lab Sample ID: 536020

Level (low/med): LOW Date Received: 07/26/03

% Solids: 13.5

	1 , , .		T	T	· r · · ·
CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	10600	1	*	P
7440-36-0	Antimony	5.8	В	N	P
7440-38-2	Arsenic	279	Ī	*	P
7440-39-3	Barium	688	Ī	İ	P
7440-41-7	Beryllium	1.6	B	İ	P
7440-43-9	Cadmium	8.7	Ī	Ī	P
7440-70-2	Calcium	1680	B	*	P
7440-47-3	Chromium	24.8		*	P
7440-48-4	Cobalt	1480	T	1	P
7440-50-8	Copper	100	Ī	1	P
7439-89-6	Iron	459000	Ť	Ī	P
7439-92-1	Lead	22.1		*	P
7439-95-4	Magnesium	830	B	*	P
7439-96-5	Manganese	178000	1	Ì	P
7439-97-6	Mercury	0.11	U		cv
7440-02-0	Nickel	1300		N	P
7440-09-7	Potassium	886	В		P
7782-49-2	Selenium	50.3	Ī	N	P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	494	В	I	P
7440-28-0	Thallium	4.2	U	1	P
7440-62-2	Vanadium	10.4	В	*	P
7440-66-6	Zinc	1470			P

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					·
·			·		
-					

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: S'	TL BURLINGTON	Contract	: 23046	
Lab Code: S	TLVT Case No.:	23046 SAS No	.:	SDG No.: GCD003
Initial Cali	bration Source: Inorg	anic Ventures/Fishe	er	
Continuing (alibration Source: SP			
		Concentration Un	its: ug/L	
		1		

:	Initial (Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Lead	1000.0	996.00 99.6	400.0	395.30	98.8	390.9	0 97.7	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ST	L BURLINGTON		Contract: 23046	
Lab Code: St	TLVT Case	No.: 23046	SAS No.:	SDG No.: GCD003
Initial Cali	bration Source:	Inorganic Ventu	res/Fisher	
Continuing C	alibration Sourc	e: SPEX/Fisher		
		Concent	ration Units: ug/L	

	Initia	l Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R (1)	м
Lead			400.0	397.40	99.4	392.1	0 98.0	Р

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SI	L BURLINGTON	Cor	ntract: 23046	
Lab Code: S	Case	No.: 23046	SAS No.:	SDG No.: GCD003
Initial Cali	bration Source:	norganic Ventures	:/Fisher	-
Continuing C	alibration Sourc	e: SPEX/Fisher		-

Concentration Units: ug/L

•	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Lead			400.0	390.50	97.6			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLIN	GTON	_Contract: 23046	
Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCD003
Initial Calibration	Source: Inorganic Ventu	res/Fisher	
Continuing Calibration	on Source: SPEX/Fisher		
	Concent	ration Units: ug/L	

	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Mercury	3.0	3.05 101.7	5.0	5.03	100.6	5.2	8 105.6	لتبا

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL	BURLINGTON	Cc	ntract: <u>2304</u>	6				
Lab Code: STI	SDG	No.: G	CD003					
Initial Calib	ration Source: Inor	ganic Venture	s/Fisher		<u>.</u>			
Continuing Ca	libration Source: S	PEX/Fisher						
	Initial Calibration Continuing Ca					ation		
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м

5.0

5.23 104.6

CV

Mercury

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD003

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

:	Initial	Calibration	n		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	26000.0	26160.00	100.6	30200.0	30610.00	101.4	30560.00	101.2	P
Antimony	250.0	251.10	100.4	300.0	307.80	102.6	308.30	102.8	P
Arsenic	250.0	250.40	100.2	100.0	105.00	105.0	104.30	104.3	P
Barium	l 500.0	497.30	99.5	200.0	204.20	102.1	202.70	101.4	P
Beryllium	. 500.0	502.60	100.5	100.0	101.60	101.6	101.40	101.4	P
Cadmium	500.0	493.10	98.6	100.0	101.20	101.2	99.97	100.0	P
Calcium	25000.0	25390.00	101.6	30200.0	30920.00	102.4	30580.00	101.3	P
Chromium	500.0	501.20	100.2	200.0	209.30	104.6	208.20	104.1	Р
Cobalt	500.0	492.50	98.5	200.0	203.40	101.7	202.00	101.0	P
Copper	500.0	503.00	100.6	200.0	205.80	102.9	204.10	102.0	Р
Iron	25500.0	26330.00	103.3	30200.0	30950.00	102.5	30850.00	102.2	P
Magnesium	25000.0	25410.00	101.6	30200.0	30800.00	102.0	30590.00	101.3	Р
Manganese	J 500.0	495.40	99.1	200.0	204.20	102.1	202.50	101.2	Р
Nickel	500.0	497.10	99.4	200.0	211.80	105.9	210.00	105.0	Р
Potassium	25000.0	26340.00	105.4	30200.0	31480.00	104.2	31320.00	103.7	P
Selenium	250.0	246.50	98.6	100.0	100.90	100.9	100.10	100.1	P
Silver	500.0	499.70	99.9	100.0	102.20	102.2	101.80	101.8	Р
Sodium	25000.0	25280.00	101.1	30200.0	30020.00	99.4	30070.00	99.6	Р
Thallium	250.0	238.10	95.2	100.0	101.90	101.9	102.10	102.1	P
Vanadium	500.0	497.90	99.6	200.0	203.80	101.9	202.10	101.0	P
Zinc	500.0	498.80	99.8	200.0	204.00	102.0	203.00	101.5	Р

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	ab Name: STL BURLINGTON					Contract: 23046		
Lab	Code:	STLVT	Case	No.:	23046	SAS No.:	SDG No.: GCD003	
Tni	tial C	alibration	Source: 1	Inorgai	nic Vent	ures/Fisher		

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration						
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м	
Aluminum				30200.0	30620.00	101.4	30540.00	101.1	Р	
Antimony				300.0	306.80	102.3	308.20	102.7	P	
Arsenic		·		100.0	101.00	101.0	104.10	104.1	P	
Barium	1			200.0	203.30	101.6	202.80	101.4	P	
Beryllium	1 .]			100.0	100.40	100.4	101.10	101.1	P	
Cadmium				100.0	98.92	98.9	100.40	100.4	P	
Calcium				30200.0	30250.00	100.2	30750.00	101.8	P	
Chromium	1			200.0	207.70	103.8	208.70	104.4	P	
Cobalt	1			200.0	200.40	100.2	202.50	101.2	P	
Copper				200.0	204.20	102.1	203.00	101.5	P	
Iron				30200.0	30700.00	101.7	30940.00	102.5	P	
Magnesium				30200.0	30250.00	100.2	30610.00	101.4	P	
Manganese				200.0	201.40	100.7	202.10	101.0	P	
Nickel				200.0	208.20	104.1	211.90	106.0	P	
Potassium				30200.0	31660.00	104.8	31500.00	104.3	P	
Selenium				100.0	99.50	99.5	103.00	103.0	P	
Silver				100.0	101.90	101.9	101.30	101.3	P	
Sodium	1			30200.0	30090.00	99.6	29940.00	99.1	P	
Thallium	1			100.0	102.10	102.1	101.20	101.2	P	
Vanadium	I			200.0	201.20	100.6	202.10	101.0	P	
Zinc	T i			200.0	201.40	100.7	203.00	101.5	P	

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL BURLING	GTON	Contract: 23046		
Tab	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCD003
Lab	code:	SILVI	Case No.: 23046	SAS NO.:	SDG NO.:	GCD003

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				- 11	CRDL Standard for ICP				
				Initia	al		Final		
Analyte	True	Found	%R	True	Found	%R	Found	%R	
Lead				6.0	4.18 6	59.7	5.93	98.8	

Control Limits: no limits have been established by EPA at this time

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTON		Contract: 230	046		
Lab Code:	STLVT Case	No.: 23046	SAS No.:		SDG No.:	GCD003
AA CRDL St	andard Source:	Inorganic Vent	ures			
ICP CRDL S	tandard Source:	Inorganic Vent	ures			
		Conc	entration U	nits: ug/L		

				Ini	CRDL Stand	dard	for ICP Fina	1
Analyte	True	Found	%R	True	Found	%R	Found	₹R

95.0

Control Limits: no limits have been established by EPA at this time

0.19

0.2

Mercury

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL 1	BURLINGTON	Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCD003</u>

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

	<u> </u>							
					CRDL Star	ndard		
				Init	tial		Fina	1
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum				400.0	499.30	124.8	497.00	124.2
Antimony				120.0	121.80	101.5	122.30	101.9
Arsenic			-	20.0	20.17	100.8	20.41	102.0
Barium				400.0	395.70	98.9	397.40	99.4
Beryllium				10.0	10.18	101.8	10.16	101.6
Cadmium				10.0	10.46	104.6	10.20	102.0
Calcium				10000.0	10420.00	104.2	10400.00	104.0
Chromium				20.0	17.09	85.4	18.13	90.6
Cobalt				100.0	98.29	98.3	98.55	98.6
Copper				50.0	54.57	109.1	54.73	109.5
Iron				200.0	234.60	117.3	253.00	126.5
Magnesium				10000.0	10180.00	101.8	10150.00	101.5
Manganese				30.0	28.80	96.0	28.88	96.3
Nickel				80.0	76.81	96.0	80.10	100.1
Potassium				10000.0	10720.00	107.2	10920.00	109.2
Selenium			·	10.0	9.02	90.2	11.13	111.3
Silver				20.0				
Sodium				10000.0	9830.00	98.3	10030.00	
Thallium				20.0	20.81	104.0		111.1
Vanadium				100.0	99.27	99.3	98.92	98.9
Zinc				40.0	42.82	107.0	42.95	107.4

Control Limits: no limits have been established by EPA at this time

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD003

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank	
Analyte	(ug/L)	С	1	- C .	2	С	3	С	C	М
Lead	1.	3 0	1.	3 U	1	. 3 บ	1.	3 U	0.130 U	P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD003

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank				tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	. c	3	С	С	М
Lead			1.	3 0	1	.3 U				P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCD003

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С	Diank	;	М
Mercury	0.	1 U	0.	.1 U	0	. 1 ט	0.	1 U	0.017 U	7	CV

3 **BLANKS**

Lab Name: STL BURLINGTON _____ Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	С	. 1	. C	ontinuing Ca Blank (ue			С	Preparation Blank	С	м
Aluminum	23.6	ם	23.6	U	-39.7	В	-51.4	В	2.360	U	P
Antimony	4.7	ט	4.7	ן ט	4.7	U	4.7	Ū	0.470	U	P
Arsenic	4.8	כ	4.8	ע	4.8	ש	4.8	Ū	0.480	U	P
Barium	5.9	Ü	5.9	ט	5.9	ַ	5.9	ט	0.590	U	P
Beryllium	0.2	U	0.2	ן ט	0.2	В	0.2	บ	0.020	U	P
Cadmium	0.6	U	0.6	ן ט	0.6	Ŭ	0.6	U	0.060	U	P
Calcium	182.1	Ū	182.1	Ū	182.1	Ū	182.1	U	18.210	U	P
Chromium	-4.3	В	-3.9	В	-4.0	В	-4.8	В	-0.343	В	P
Cobalt	2.0	U	2.0	U	2.0	U	2.0	Ū	0.200	U	P
Copper	2.4	U	2.4	U	2.4	U	-3.6	В	0.240	U	P
Iron	33.3	บ	33.3	U	33.3	U	-47.2	В	3.330	U	P
Magnesium	178.3	U	178.3	Ū	178.3	U	178.3	Ū	17.830	U	P
Manganese	-1.4	В	-1.4	В	-1.4	В	-1.1	В	-0.104	В	P
Nickel	-8.4	В	-7.9	В	-8.6	В	-8.2	В	-1.129	В	P
Potassium	393.0	U	393.0	υ	393.0	U	393.0	U	39.300	U	P
Selenium	3.4	U	3.4	U	3.4	יט	3.4	U	0.340	U	P
Silver	2.2	Ū	2.2	ַ	2.2	υ	2.2	U	0.220	U	P
Sodium	472.7	U	472.7	ַ	472.7	Ū	472.7	U	79.380	В	P
Thallium	5.7	U	5.7	U	5.7	Ū	5.7	U	0.570	U	P
Vanadium	2.0	U	2.0	ַ	2.0	ַ	2.0	U	0.200	U	P
Zinc	1.0	U	1.0	ַ	1.0	ט	1.0	U	0.111	В	P

3 **BLANKS**

Lab	Name: STL BURLINGTON			Contract:	23046	
Lab	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCD003

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

		· · · · · · · · · · · · · · · · · · ·									
Des Just	Blank Blank (ug/L) Blank								Preparation Blank		
Analyte	(ug/L)	С	1	С	. 2	С	3	С		С	M
Aluminum			23.6	ַ							P
Antimony			4.7	ן ט							P
Arsenic			4.8	U		Ī					P
Barium			5.9	U		iii					P
Beryllium			0.2	וט		i		ľ			P
Cadmium			0.6	U				ŀ			P
Calcium			182.1	וט							P
Chromium			-4.0	В							P
Cobalt			2.0	ט	· · · · · · · · · · · · · · · · · · ·	T I					P
Copper			2.4	ט		İ		1			P
Iron			33.3	וט		i i					P
Magnesium			178.3	וט		İ					P
Manganese			-1.3	В							P
Nickel			-8.4	В		i i					P
Potassium			393.0	ט							P
Selenium	1		3.4	ן ט		Ti				-	P
Silver			2.2	ן ט		Ti					P
Sodium			472.7			Ti					P
Thallium			5.7	ט		İ			ĺ		P
Vanadium			2.0	ט		Ti i					P
Zinc		Ti	1.0			Ti					P

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

True Initial Found Final Found
Analyte Sol.A Sol.AB Sol.A Sol.AB %R Sol.A Sol.AB %R
Lead 0 41 1 48.1 117.3 3 48.0 117.1

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD003

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

					<u>····</u>			
	True	€	Init	tial Found		Fi	nal Found	
Analyte	Sol.A	Sol.AB	Sol.A	Sol.A	B %R	Sol.A	Sol.AE	8
Aluminum	500000	482740	504000	501800.0	103.9	506000	503700.0	104.3
Antimony	0	596	-5	623.9	104.7	-3	625.7	105.0
Arsenic	0	102	9	106.9	104.8	9	103.6	101.6
Barium	0	503	2	508.3	101.1	2	508.8	101.2
Beryllium	0	482	0	486.9	101.0	0	484.9	100.6
Cadmium	0	938	1	946.0	100.9	1	939.2	100.1
Calcium	500000	477840	496200	494000.0	103.4	497100	492000.0	103.0
Chromium	0	483	0	482.8	100.0	-1	481.3	99.6
Cobalt	0	457	-1	464.7	101.7	-1	462.7	101.2
Copper	0	526	3	520.9	99.0	3	519.5	98.8
Iron	200000	191980	203400	200100.0	104.2	204800	200200.0	104.3
Magnesium	500000	521880	545300	543600.0	104.2	546000	540400.0	103.5
Manganese	0	474	0	478.4	100.9	0	474.3	100.1
Nickel	0	952	-7	964.0	101.3	-6	959.8	100.8
Potassium	0	0	19	-29.1		61	-4.8	
Selenium	0	47	0	50.0	106.4	3	51.0	108.5
Silver	0	213	0	215.8	101.3	1	214.8	100.8
Sodium	0	0	18	-132.4		-94	-118.6	
Thallium	0	89	-2	90.4	101.6	-2	91.7	103.0
Vanadium	0	478	0	473.5	99.1	0	472.3	98.8
Zinc	0	998	5	1014.0	101.6	4	1006.0	100.8

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

BLACSTPSD01S	
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Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 77.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

31	Control	Spiked Sample		Sample		Spike			
Analyte	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	₹R	Q	M
Aluminum	1	15170.9600		12400.7598		233.40	1186.9		P
Antimony	75 - 125	40.0163		2.0776	В	58.35	65.0	N	P
Arsenic	1	24.3669		34.7097		4.67	-221.5		P
Barium	75 - 125	282.7635	1	67.4751		233.40	92.2		P
Beryllium	75 - 125	5.9587		0.3275	В	5.83	96.6		P
Cadmium	75 - 125	5.8093		0.3267	В	5.83	94.0		P
Chromium		164.0798		101.5118		23.34	268.1		Р
Cobalt	75 - 125	77.5236		20.0157		58.35	98.6		P
Copper	75 - 125	57.5096		30.0360	l	29.17	94.2		P
Iron	1	33481.1484	- 1	29973.7109		116.70	3005.5		P
Lead	75 - 125	5.3868	- 1	3.2770		2.38	88.6		P
Manganese	1	671.7237		542.6425		58.35	221.2		P
Mercury	75 - 125	0.2344		0.0186	ש	0.19	123.4		cv
Nickel	75 - 125	213.9106		130.8623		58.35	142.3	N	P
Selenium	75 - 125	1.1589	Ī	0.4965	В	1.17	56.6	N	P
Silver	75 - 125	5.3087		0.2742	บ	5.83	91.1		P
Thallium	75 - 125	5.7965		0.7104	ט	5.83	99.4		P
Vanadium	75 - 125	124.4019		58.5266		58.35	112.9		P
Zinc	75 - 125	117.0498		55.3610		58.35	105.7		P

Comments:			
	· · · · · · · · · · · · · · · · · · ·	 	

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Lab Name:	STL BURLING	GTON	Contra	ct: <u>23046</u>		
Lab Code:	STLVT	Case No.: 23046	SAS		SDG No.:	GCD003
Matrix (s	oil/water):	SOIL		Level (low/	med): LOW	

Concentration Units: uq/L

			Lat	ion Units: ug/L					
Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added(SA)	%R	Q	м
Aluminum		101200.00		99500.00		2000.0	85.0		P
Antimony		541.30		16.67	В	500.0	104.9		P
Arsenic		311.50		278.50		40.0	82.5		P
Barium		2619.00		541.40		2000.0	103.9		₽
Beryllium		54.46		2.63	В	50.0	103.7		P
Cadmium		53.21		2.62	В	50.0	101.2		P
Chromium		1015.00		814.50		200.0	100.2		P
Cobalt		666.40		160.60		500.0	101.2		P
Copper		511.40		241.00		250.0	108.2		P
Iron		238000.00		240500.00		1000.0	-250.0		P
Lead		44.34		27.57		20.0	83.8		P
Manganese		4802.00		4354.00		500.0	89.6		P
Nickel		1547.00		1050.00		500.0	99.4		P
Selenium		13.10		3.98	В	10.0	91.2		P
Silver		52.32		2.20	บ	50.0	104.6		P
Thallium		53.18		5.70	U	50.0	106.4		₽
Vanadium		991.10		469.60		500.0	104.3		P
Zinc		947.00		444.20		500.0	100.6		P

Comments:	
-	

DUPLICATES

SAMPLE NO.

MG/KG

152.8326

755.9280

0.4495 B

0.2664 U

245.1135 B

75.5444

50.0642

0.8815 B

BLACST	PSD01D	

Р

P

P

P

P

P

P

P

15.5

6.8

9.9

12.1

200.0

25.4

10.0

Lab Name: STL BURLINGTON Contract: 23046

Control

623.2

Analyte

Nickel

Potassium

Selenium

Silver

Sodium

Thallium

Vanadium

Zinc

SDG No.: GCD003 Lab Code: STLVT Case No.: 23046 SAS No.:

Level (low/med): LOW Matrix (soil/water): SOIL

% Solids for Duplicate: 76.1 % Solids for Sample: _77.9

Concentration Units (ug/L or mg/kg dry weight):

3	Limit	Sample (S)	C	Duplicate (D)	С	RPD	ĮΩ	М
Aluminum		12400.7598		17632.6699		34.8	*	P
Antimony		2.0776	В	1.7899	В	14.9		P
Arsenic		34.7097		19.1949		57.6	*	P
Barium	24.9	67.4751		73.7762		8.9		P
Beryllium		0.3275	В	0.2586	В	23.5		P
Cadmium		0.3267	В	0.2567	В	24.0		P
Calcium		3117.0161		4049.7009		26.0	*	P
Chromium		101.5118		172.0881		51.6	*	P
Cobalt	6.2	20.0157		23.8090		17.3		P
Copper		30.0360		25.1532		17.7		P
Iron		29973.7109		32516.2891		8.1		P
Lead		3.2770		2.6268		22.0	*	P
Magnesium		10387.9805		23615.1797		77.8	*	P
Manganese		542.6425		590.6218		8.5		P
Mercury		0.0186	U	0.0189	U			CV

130.8623

808.9785

0.4965

0.2742

0.7104

58.5266

55.3610

276.6804

В

В

U

LABORATORY CONTROL SAMPLE

Lab Name: STL BURLINGTON		Contract: 2	23046			
Lab Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.: GCD003	
Solid LCS	Source: ERA	lot249/USEPA 0996/ERA	lot0899			
Aqueous LC	S Source:					
		Aqueous (ug/L)		Solid	(mg/kg)	!

True

22.0

Found C

22.1

₹R

Limits

26.4 100.5

17.6

Analyte

Lead

True

Found

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGT	'ON	_ Contract: 2	23046		
Lab Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.: GCD003	
Solid LCS	Source: ERA	lot249/USEPA 0996/ERA	lot0899			
Aqueous LO	S Source:					
		Aqueous (ug/L)		Solid	(mg/kg)	

True

0.1

%R

Analyte

Mercury

True

Found

٧R

0.1 100.0

Limits

0.1

Found C

0.1

LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON	Contract: 23046	
		-	

Solid LCS Source: ERA lot249/USEPA 0996/ERA lot0899

Aqueous LCS Source:

			T				-	
	Aqueous	(ug/L)			Solid	(mg/kg)		
Analyte	True	Found	%R	True	Found C	Limi	.ts	%R
Aluminum				200.0	218.6	160.0	240.0	109.3
Antimony			1	50.0	54.4	40.0	60.0	108.8
Arsenic				24.0	25.0	19.2	28.8	104.2
Barium				200.0	213.6	160.0	240.0	106.8
Beryllium				5.0	5.4	4.0	6.0	108.0
Cadmium				25.0	26.6	20.0	30.0	106.4
Calcium				2000.0	2174.0	1600.0	2400.0	108.7
Chromium				20.0	21.7	16.0	24.0	108.5
Cobalt				50.0	53.0	40.0	60.0	106.0
Copper				25.0	28.1	20.0	30.0	112.4
Iron				100.0	109.3	80.0	120.0	109.3
Magnesium				2000.0	2127.0	1600.0	2400.0	106.4
Manganese				50.0	54.1	40.0	60.0	108.2
Nickel				50.0	52.6	40.0	60.0	105.2
Potassium				2000.0	2083.0	1600.0	2400.0	104.2
Selenium				21.0	20.5	16.8	25.2	97.6
Silver				25.0	26.7	20.0	30.0	106.8
Sodium	ĺ			2000.0	2179.0	1600.0	2400.0	109.0
Thallium			1	25.0	25.8	20.0	30.0	103.2
Vanadium				50.0	54.4	40.0	60.0	108.8
Zinc			1	50.0	53.3	40.0	60.0	106.6

9 ICP SERIAL DILUTIONS

SAMPLE NO.

BLACSTPSD01L

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD003

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

	Concentra	tio	n Units: ug/L		·		
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Differ- ence	Q	м
Aluminum	99500.00		104400.00		4.9	i	P
Antimony	16.67	В	23.50	บ	100.0		P
Arsenic	278.50		300.60		7.9		P
Barium	541.40		552.90	В	2.1		P
Beryllium	2.63	В	3.56	В	35.4		P
Cadmium	2.62	В	3.37	В	28.6		P
Calcium	25010.00		26560.00		6.2		P
Chromium	814.50		826.80		1.5		P
Cobalt	160.60		166.60	В	3.7		P
Copper	241.00		235.50		2.3		P
Iron	240500.00		250200.00		4.0		₽
Lead	27.57		24.28		11.9		P
Magnesium	83350.00		85790.00		2.9		₽
Manganese	4354.00		4519.00		3.8		P
Nickel	1050.00	Ī	1059.00		0.9		P
Potassium	6491.00		6961.00	В	7.2		P
Selenium	3.98	В	17.00	U	100.0		P
Silver	2.20	Ū	11.00	Ū			P
Sodium	2220.00	В	3054.00	В	37.6		P
Thallium	5.70	U	28.50	ט			P
Vanadium	469.60		482.50		2.7		P
Zinc	444.20	Ī	467.30		5.2		P

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON			Contract: 23046					
Lab Code: STLVT C	ase No.: 230	046	SAS No.	:	sı	OG No.	: GCD003	
ICP ID Number:			Date:	08/20/03				
Flame AA ID Number: <u>LE</u> Furnace AA ID Number: _	EMAN PS200							
	Analyte	Wave- length	Back- ground	CRDL (ug/L)	IDL (ug/L)	м		

0.10 CV

0.2

(nm)

Mercury

253.70

Comments:	

Furnace AA ID Number:

INSTRUMENT DETECTION LIMITS (QUARTERLY)

10

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCD003
ICP ID Number: TJA ICAP 4	Date: 07/01/03
Flame AA ID Number:	

Analyte	Wave- length (nm)	Back- ground	CRDĻ (ug/L)	IDL (ug/L)	м
Aluminum	308.215		200	23.6	P
Antimony	206.838		60	4.7	P
Arsenic	189.042		10	4.8	P
Barium	493.409		200	5.9	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.6	P
Calcium	317.933		5000	182.1	P
Chromium	267.716		10	1.4	P
Cobalt	228.616		50	2.0	P
Copper	324.754		25	2.4	P
Iron	271.441		100	33.3	P
Lead	220.353		3	1.3	P
Magnesium	279.078		5000	178.3	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.1	P
Potassium	766.491		5000	393.0	P
Selenium	196.026		5	3.4	P
Silver	328.068		10	2.2	P
Sodium	330.232		5000	472.7	P
Thallium	190.864		10	5.7	P
Vanadium	292.402		50	2.0	P
Zinc	213.856		20	1.0	P

Comments:	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

ICP ID Number: TJA ICAP 4 Date: 06/30/03

	Wave- length	-	Interelement	Correction	Factors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Ba
Aluminum	308.22	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.000000	-0.0000600	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Boron	249.68	0.0000000	0.000000	0.0008950	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000330	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0006300	0.000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	-0.0000220	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000200	0.000000	-0.0000900	0.0000000	0.000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.0000490	0.0000000	0.0000000
Zinc	213.86	0.0000250	0.000000	0.0000630	0.0000000	0.000000

Comments:		
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

ICP ID Number: TJA ICAP 4 Date: 06/30/03

_	Wave- length	Interelement Correction Factors for:						
Analyte	(nm)	Co	Cr	Cu	Mn	Мо		
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400		
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800		
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380		
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Boron	249.68	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Chromium	267.72	0.0001150	0.000000	0.0000000	0.0000000	0.0001350		
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380		
Copper	324.75	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Iron	271.44	0.1059800	0.000000	0.0000000	0.0000000	0.0036200		
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540		
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Nickel	231.60	-0.0004300	0.0000000	0.0000000	0.0000000	0.0000000		
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Selenium	196.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750		
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007920		
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000		
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	-0.0160000		
Zinc	213.86	0.0000000	0.0000000	0.0003300	0.0000000	0.0000000		

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL	BURLINGTON		Contract:	23046	

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD003

ICP ID Number: TJA ICAP 4 Date: 06/30/03

	Wave- length		Interelement	Correction	Factors for:	
Analyte	(nm)	Ni	Sb	Sn	v	Zn
Aluminum	308.22	0.0000000	0.0000000	0.1440400	0.0000000	0.000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0006280	0.000000
Boron	249.68	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Cadmium	226.50	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Copper	324.75	0.0000000	0.000000	0.0000000	-0.000192	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0237000	0.0000000
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	-0.1212200	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.1177000
Thallium	190.86	0.0000000	0.0000000	0.000000	0.0025400	0.0000000
Tin	189.99	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Zinc	213.86	0.0052400	0.000000	0.000000	0.0000000	0.0000000

Comments:		 				
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12 ICP LINEAR RANGES (QUARTERLY)

T _ la	Mama	Cm†	DIDI INCHON	Contract:	22046	
Lар	Name:	SIL	BURLINGTON	Contract:	23040	

ICP ID Number: TJA ICAP 4 Date: 07/01/03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	10000.0	P
Iron	10.00	1000000.0	P
Lead	10.00	10000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	10000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	5000.0	P

Comments:		

13 PREPARATION LOG

Lab	Name:	STL BURLINGTON	Contract: 23046

Method: CV

EPA Sample No.	Preparation Date	Initial Weight (g)	Volume (mL)
BLACADSSD11	09/16/03	0.65	100.0
BLACPDSSD10	09/16/03	0.67	100.0
BLACPDSSD41	09/16/03	0.63	100.0
BLACPDSSD43	09/16/03	0.68	100.0
BLAC\$TPSD01	09/16/03	0.69	100.0
BLAC\$TPSD01D	09/16/03	0.68	100.0
BLACSTPSD01S	09/16/03	0.69	100.0
BLAC\$TPSD02	09/16/03	0.61	100.0
BLAC\$TPSD03	09/16/03	0.68	100.0
BLAC\$TPSD04	09/16/03	0.60	100.0
BLAC\$TPSD42	09/16/03	0.70	100.0
BLAC\$TRSD02	09/16/03	0.67	100.0
BLAC\$TRSD04	09/16/03	0.63	100.0
BLAC\$TRSD42	09/16/03	0.60	100.0
BLUEPDSSD16	09/16/03	0.70	100.0
LCSS0916A	09/16/03	1.00	100.0
PBS0916A	09/16/03	0.60	100.0

13 PREPARATION LOG

Lab	Name:	STL BURLINGTON	Contract:	23046

Method: P

EPA	Preparation	Initial Weight	Volume
Sample No.	Date	(a)	(mL)
BLACADSSD11	08/22/03	1.05	100.0
BLACPDSSD10	08/22/03	1.00	100.0
BLACPDSSD41	08/22/03	1.00	100.0
BLACPDSSD43	08/22/03	1.02	100.0
BLAC\$TPSD01	08/22/03	1.03	100.0
BLAC\$TPSD01D	08/22/03	1.06	100.0
BLAC\$TPSD01S	08/22/03	1.10	. 100.0
BLAC\$TPSD02	08/22/03	1.05	100.0
BLAC\$TPSD03	08/22/03	1.06	100.0
BLAC\$TPSD04	08/22/03	1.09	100.0
BLAC\$TPSD42	08/22/03	1.20	100.0
BLAC\$TRSD02	08/22/03	1.08	100.0
BLACSTRSD04	08/22/03	1.00	100.0
BLAC\$TRSD42	08/22/03	1.04	100.0
BLUEPDSSD16	08/22/03	1.00	100.0
LCSS0822D	08/22/03	1.00	100.0
PBS0822D	08/22/03	1.00	100.0

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PREPARATION LOG

Lab Name:	STL BURLINGT	ON	Contract:	23046	
Lab Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCD003

Method: P

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)
BLACADSSD11	09/11/03	1.07	100.0
BLACPDSSD10	09/11/03	1.04	100.0
BLACPDSSD41	09/11/03	1.10	100.0
BLACPDSSD43	09/11/03	1.02	100.0
BLACSTPSD01	09/11/03	1.08	100.0
BLACSTPSD01D	09/11/03	1.08	100.0
BLACSTPSD01S	09/11/03	1.08	100.0
BLACSTPSD02	09/11/03	1.10	100.0
BLACSTPSD03	09/11/03	1.08	100.0
BLACSTPSD04	09/11/03	1.06	100.0
BLACSTPSD42	09/11/03	1.00	100.0
BLACSTRSD02	09/11/03	1.13	100.0
BLACSTRSD04	09/11/03	1.01	100.0
BLACSTRSD42	09/11/03	1.12	100.0
BLUEPDSSD16	09/11/03	1.04	100.0
LCSS0911I	09/11/03	1.00	100.0
PBS0911I	09/11/03	1.00	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD003

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/13/03 End Date: 09/13/03

Start Date: <u>09/13</u>	,,, 0,3														<u> </u>				_								
EPA													7	lna	ıly	te	s			•							
Sample	D/F	Time	% R	Α	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	S	A	И	T	V	Z	С
No.				L	В	s			D	A	R	0	บ	E	В	G	N	G	I		E	G	A	L		N	И
S0	1.00	1033								П					х					Т	İ					П	
S	1.00	1038													Ì												
S	1.00	1042					İ			П					х											П	
S	1.00	1045					<u> </u>			Π					Πİ						Ī					П	
LRS	1.00	1050								Π					х											П	
LRS	1.00	1055								ΙĪ			Ī		х											П	
LRS	1.00	1100					l			İ					х											П	
ICV	1.00	1105													x												
ICB	1.00	1109													x												
ICSA	1.00	1114								ΪΪ					Х											П	
ICSAB	1.00	1119								Πĺ			Ī		Х										П		<u> </u>
CRI	1.00	1124										Γ			х											П	
CRILOW	1.00	1128								П					х												
ccv	1.00	1133					i			П					x											\sqcap	<u> </u>
CCB	1.00	1138								П					x												
ZZZZZZ	1.00	1143								İ					П											П	
ZZZZZZ	1.00	1147								i			i									Г					
ZZZZZZ	1.00	1152								i			İ													П	-
ZZZZZZ	5.00	1157								П					П						l					П	
ZZZZZZ	1.00	1201								Π					П											П	
ZZZZZZ	1.00	1206								П					П											П	\Box
ZZZZZZ	1.00	1211								П											l					П	
ZZZZZZ	1.00	1215	-					i -		i																П	
ZZZZZZ	1.00	1220															i									\sqcap	Γi
ZZZZZZ	1.00	1225											i													П	Γi
ccv	1.00	1229													x											П	\Box
CCB	1.00	1234											<u> </u>		х												
PBS0911I	1.00	1239						i							х											П	
LCSS0911I	1.00	1244													х											П	
BLACSTRSD42		1248								П					х						Ī					П	
BLACPDSSD41	1.00	1253								ΪÍ					х						<u> </u>	 				П	
BLACSTPSD01	1.00	1258								Π					х										П	П	
BLACSTPSD01L	5.00	1302						İ		Πİ					х						Ī						
BLACSTPSD01A	1.00	1307						İ		П					х						Ī	İ				П	<u> </u>
BLACSTPSD01D	1.00	1312													х										П	П	
BLACSTPSD01S	1.00	1316										Γ			х												
BLACADSSD11		1321				Н									х							Г			\exists	П	
CCV		1326							Т						х	ᅱ					П				H	\sqcap	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCD003

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/13/03 End Date: 09/13/03

Start Date: 09/1	Analytes																									
EPA													Aı	nal	.yte	es			*****							
Sample No.	D/F	Time	% R	A L	S B	A S	l i	B E	C D	- 1	C R		C I		P M B G					4	A G	1		٧	Z N	
ССВ	1.00	1331											寸	13	x	T	Ť	T	t	Ħ	Ė				一	
BLACPDSSD43	1.00	1335											\top	12	x	T	T	T	T				<u> </u>		Πİ	
BLACSTPSD02	1.00	1340										T		7	x	T	T	T	T	T	厂					
BLACSTPSD42	1.00	1345												12	x	T	T	T	T	Ī	Π				口	
BLACSTRSD02	1.00	1349											\top	72	x	T	1	T	Τ	T	T				一	
BLACSTPSD03	1.00	1354												12	x	T	T	T	Ī	Π					Πİ	
BLUEPDSSD16	1.00	1359										i		12	x	T	T	T	T	Ī					一	_
BLACPDSSD10	1.00	1403											T	2	x	Ť	T	Ī	T						ΠŤ	_
BLACSTPSD04	1.00	1408										i	İ	7	ĸ	T	T		İ	T						_
BLACSTRSD04	1.00	1413									i	ı	Ī	7	x	T	T	Ì		Ī					丁	_
CCV	1.00	1417										Î		3	x	T	İ	Τ	T	İ	İ				\top	_
ССВ	1.00	1422										ī	T	2	x	T	T		Π	İ				i		
ICSA	1.00	1427							l		ī	ī	T	7	ζ	Ī	T			Ī		П			T	_
ICSAB	1.00	1432	, .							Ì	T	i	T	7	ζ	T	T	Π	Ī	Ì					丁	_
CRI	1.00	1437								i				3	₹	T	Ť	T	T	İ					丁	_
CRILOW	1.00	1441									i			3	۲	Ī	T	Γ	Γ	T					T	_
CCV	1.00	1446												3	۲	Τ				Ī					T	_
CCB	1.00	1451								ī		i	T	12	<u> </u>	T	T	İ		i					\top	_

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>LEEMAN PS200</u> Method: <u>CV</u>

Start Date: 09/16/03 End Date: 09/16/03

EPA													7	ma	lу	te	s		•								
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	A	N	T	V	Z	С
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	И	G	I		E	G	A	L		И	N
S0	1.00	2029																Х			Г	Г					
S0.2	1.00	2032					Ī						Π					х									
S0.5	1.00	2036					Ī						İ				İ	х								П	
S1	1.00	2039			Ī		Ī						Ī					х								П	_
S 5	1.00	2042			İ		Ì											х								П	
S10 .	1.00	2046		İ	İ		Ī											х								П	_
ICV .	1.00	2050			İ		Î											х			Ī						
ICB	1.00	2053					Ī											х									
cra	1.00	2056			i		Ì											х				Г				П	
CCV	1.00	2059					Ī											х								П	_
CCB	1.00	2103					Ī											х								П	_
PBS0916A	1.00	2106																х								П	_
LCSS0916A	1.00	2109					Ī											х			Ī					П	_
BLACSTRSD42	1.00	2112				<u> </u>	Ī	Ì										х								П	_
BLACPDSSD41	1.00	2115					İ											Х				Γ				П	_
BLACSTPSD01	1.00	2119					İ					Γ	i					х								П	_
BLACSTPSD01D	1.00	2122					Π											х								П	_
BLACSTPSD01S	1.00	2125																х			Γ					П	_
BLACADSSD11	1.00	2128																х			İ					П	_
BLACPDSSD43	1.00	2131				<u> </u>		İ										х			Ī					П	_
CCV	1.00	2134					İ	ļ										х			Ī					П	
CCB	1.00	2138		İ			İ											х			Ī	Γ				\Box	_
BLACSTPSD02	1.00	2141					i											х			Ī	Γ				П	Γ
BLACSTPSD42	1.00	2144					i						Ī					х								П	Γ
BLACSTRSD02	1.00	2147					Ī											х			Ī			Ī		П	Γ
BLACSTPSD03	1.00	2150		İ														х			Ī					П	Γ
BLUEPDSSD16	1.00	2153				Π	Ī					Π	Ī		İ			х	Г		Ī	Ī		l		П	
BLACPDSSD10	1.00	2156			<u> </u>	Π	Π	Γ										х		Π						П	Γ
BLACSTPSD04	1.00	2159		Γ	İ	Γ	i	İ										х	Γ	İ	Ī					\sqcap	Γ
BLACSTRSD04	1.00	2203		Ī	İ	İ	Ī	Γ		Ī								Х		Ì	Ī					\sqcap	_
ccv	1.00	2206		T	ļ —	Π	Ī	Ì	Γ			Π						х	Ī		Ī		Π	Ī		П	
CCB	1.00	2209		Г			i		Г			Г					Π	х	İ	Γ	Ī	Π				П	Γ

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/09/03 End Date: 09/09/03

EPA													"	na	lyt	es										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	PI	1 M	Н	N	К	s	A	N	Т	v	Z	С
No.				L	В	s	A	E	D	A		0	ט	E		3 N				E	G	A	L			N
S0	1.00	0222		х	х	Х	х	х	х	х	Х	х	х	х	×	: 3	†	x	х	x	x	х	х	х	х	_
S	1.00	0227		х					Γ	х				х	×	:	T		х	Ī		х				
S	1.00	0231			х	х						ĺ		i		T	1			x			х			_
S	1.00	0235					х	х	х		Х	х	х			7	:	x		Ī	х			х	х	_
LRS	1.00	0240		х	х	х	х	Х	х	x	х		х	х	X	: 3	1	x	Х	x	x	х	х	х	х	_
LRS .	1.00	0246		Х	Х	х	х	х	х	х	х	_	х	_	×	: 3	:	x	х	х	х	х	х	х	х	
LRS	1.00	0251		х	х	х	х	х	х	х	х		х		×	· >	:	x	х	х	х	х	x	х	х	_
ICV	1.00	0256		х	х	х	х	х	х	x	Х		х		x	K		x	х	х	х	х	х	х	х	
ICB	1.00	0301		х	х	х	х	х	х	х	Х		х	_	x	. x	:	х	х	х	х	х		х	х	_
ICSA	1.00	0306		х	х	х	х	х	x	х	х		х	-	x	X	1	х	Х	x	х	х	х	х	х	_
ICSAB	1.00	0311		х	х	х	х	Х	-	х	х		x		×		<u> </u>	x			х			х	х	_
CRI	1.00	0316		х	х	Х	х	х	х	x	х	_	х		x		Ļ	х	-	Ц_	х	<u> </u>		х	х	_
ccv	1.00	0321		х	х	х	х	х	x	х	Х	_	х	$\overline{}$	x	×		х			х	х		х	х	_
CCB	1.00	0327		х	х	х	х	х	х	x	Х	-	х	_	x	: x		x	х	х	х	х	Х	х	х	_
PBS0822D	1.00	0332		х	х	х	х	х	х	х	Х		х	- :	x	X	1	х			х	-		х	x	_
LCSS0822D	1.00	0337		х	х	x	х	х	х	-	х		x	-	x		ļ	х		x		х		х	\mathbf{x}	_
BLACSTRSD42	1.00	0342		х	х	х	х	х	_		х		x		x		+	x	-	X		х		х	\mathbf{x}	_
BLACPDSSD41	1.00	0347		х	х	х	х	х	х	х	х	_	x	-	х	1	T	x		х		х		х	\mathbf{x}	_
BLACSTPSD01	1.00	0352		х	х	х	х	х	х	x	х	_	х		x	X		х	-	х		х		х	x	_
BLACSTPSD01L	5.00	0357		х	х	х	х	х	Х	x	х		x		x	k		х	_		х	\vdash	_	x	x	_
BLACSTPSD01A	1.00	0402		х	х	x	х	х	Х	П	х	_	х	-	十	x	i	х		х	х		х	х	x	
BLACSTPSD01D	1.00	0407		х	х	x	х	х	Х	x	х		x		x	x	T	х	Х	Х	х	х	х	х	x	_
BLACSTPSD01S	1.00	0412		х	х	x	х		х		х	_	х		\neg	k	-	х		х			х	х	x	
BLACADSSD11	1.00	0417		х	х	x	х	х	х	х	х		x		х	k		х	Х	х	х	х	х	х	x	_
CCV	1.00	0422		х	х	x	х	х	х	х	х		x		Х		1-	х	\vdash			Х		х	x	_
CCB	1.00	0427		х	х	x	х	х	Х	х	х		$\frac{x}{x}$		х	x		х			х			x	x	_
BLACPDSSD43	1.00	0432		х	х	x	х	х	х	x	х		х		х	x		х		х		х	_	x	x	_
BLACSTPSD02	1.00	0437		х	х	x	х	х	х		х		x		x	<u> </u>	+	х	_	_	х	$\overline{}$	_	х	\mathbf{x}	_
BLACSTPSD42	1.00	0443		х	х	x	х	х	х	х	\mathbf{x}	γĺ	v	v	x	T _x	T	х			х			х	х	_
BLACSTRSD02	1.00	0448		х	х	\mathbf{x}	х	х	Х	x		$\frac{\Lambda}{\mathbf{x}}$			x	x	T	х	X	х	X	X	Х	_	x	_
BLACSTPSD03	1.00	0453		х		x				x					x		!	Х			х		_	_	\mathbf{x}	_
BLUEPDSSD16	1.00	0458		х	х								$\frac{1}{x}$	-	x		T	х			х	_		_	x	_
BLACPDSSD10		0503		х			х			Х	х		$\frac{x}{x}$	_	х		1	х			х				x	-
BLACSTPSD04		0508		х	х		!					_	_	_	х		1	х			x		-	_	x	_
BLACSTRSD04		0513		-			х								x		T	х			х		_	_	x	-
BLACPDSSD41	10.00			\vdash	ᅥ	1							~		- [x	!		ا					-	1	_
ccv		0523		х	x	$\frac{1}{x}$	х	x	X	X I	Х	$\frac{1}{x}$	$\frac{1}{x}$	ᆛ	x		-	x	XI	x	х	x	Х	y	$\frac{1}{x}$	
ССВ		0528			x						x				x		 	_			x					_

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/09/03 End Date: 09/09/03

EPA													P	lna	ly	te	s										
Sample No.	D/F	Time	% R	A	S B	A S	B A	B E	C D	C A		1	C U	i	P B		M N	H G	N		S E	A G	- 1	T L	V	Z N	
ZZZZZZ	10.00	0533		İ					Γ	Γ											Г				П	П	Γ
BLUEPDSSD16	100.00	0538		ĺ	Ì		Ī		Π	Ī	Ī						х									П	Γ
BLACSTPSD04	10.00	0543															х										Γ
ICSA	1.00	0548		х	х	х	х	Х	x	x	х	х	х	х		х	х		Х	х	x	х	х	х	х	х	Γ
ICSAB	1.00	0553		х	х	х	х	Х	х	x			_	х		x	х		Х	х	x	х	х	х	х	х	Г
CRI	1.00	0559		х	х	х	х	Х	x	x	_	-	_	х	_	x	х		х	Х	x	х	х	Х	х	х	_
CCV	1.00	0604		х	х	х	х	Х	х				_	х	_	X	х		Х	Х	х	х	х	х	х	х	Γ
CCB	1.00	0609		х	х	х	х	х	х			-	_	х		x	х		х							х	_



Geotechnical Analysis Sample Data Summary Package

EASEAT SDG + GCD003

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT**

23046 Project No.: Job No.: N/A

95020 ETR(s) #: SDG(s): GCD003

Date Received: 26-Jul-03

NA

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536011 Sample ID: RSD-42

Percent Solids: 78.1%

Specific Gravity: 2.65

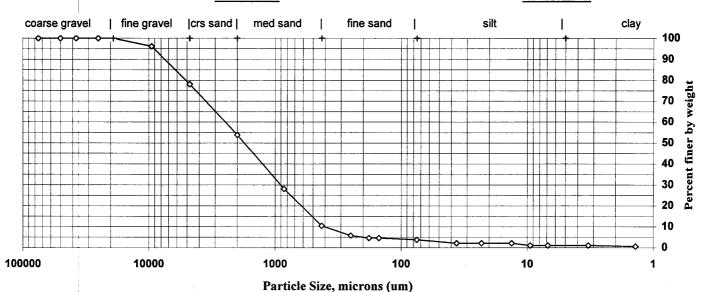
Non-soil mass:

(assumed)

Maximum Particle Size:

19 mm Shape (> #10): subrounded

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	96.2	3.8
#4	4750	78.2	18.0
#10	2000	53.8	24.4
#20	850	28.1	25.7
#40	425	10.5	17.6
#60	250	5.8	4.7
#80	180	4.6	1.2
#100	150	4.6	0.0
#200	75	3.7	0.8
Hydrometer	36.3	2.1	1.6
	22.9	2.1	0.0
	13.2	2.1	0.0
	9.4	1.1	1.1
	6.9	1.1	0.0
	3.3	1.1	0.0
V	1.4	0.6	0.4

Soil	Percent of
Classification	Total Sample
Gravel	21.8
Sand	74.4
Coarse Sand	24.4
Medium Sand	43.3
Fine Sand	6.8
Silt	2.7
Clay	1.1

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

Client: **EASEAT** Client Code: **EASEAT**

Project No.: Job No.:

23046 N/A

ETR(s) #: 95020 GCD003 SDG(s):

Date Received:

26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536012

Sample ID: SSD-41

Percent Solids: 24.2% Specific Gravity:

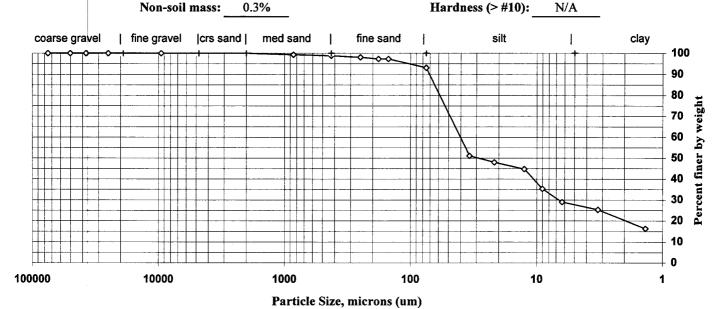
2.65

(assumed)

Maximum Particle Size: Med sand

Shape (>#10):

N/A Hardness (> #10): N/A



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.3	0.7
#40	425	98.9	0.5
#60	250	98.1	0.7
#80	180	97.3	0.8
#100	150	97.3	0.0
#200	75	93.1	4.2
Hydrometer	34.1	51.2	41.9
1	21.7	48.0	3.2
	12.6	44.8	3.2
	9.0	35.3	9.5
	6.3	29.0	6.3
	3.2	25.3	3.7
V	1.4	16.3	9.0

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	6.9
Coarse Sand	0.0
Medium Sand	1.1
Fine Sand	5.8
Silt	64.1
Clay	29.0

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217 23046

Client: EASEAT Client Code: **EASEAT**

Project No.: Job No.:

ETR(s) #: 95020

Date Received:

26-Jul-03

N/A Start Date: 12-Aug-03

SDG(s): GCD003 End Date: 22-Aug-03

Lab ID: 536013 Sample ID: PSD-01

Percent Solids: 83.1%

Maximum Particle Size:

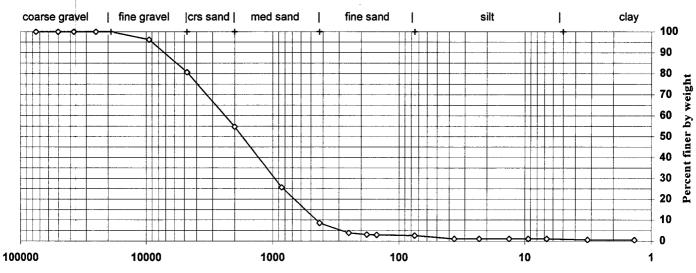
19 mm

Specific Gravity: 2.65 Non-soil mass: NA

(assumed)

Shape (> #10): subrounded

Hardness (> #10): hard



P	article	Size.	microns	(um)	ì

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	96.2	3.8
#4	4750	80.6	15.6
#10	2000	54.8	25.9
#20	850	25.7	29.1
#40	425	8.6	17.1
#60	250	3.9	4.7
#80	180	3.1	0.8
#100	150	2.9	0.1
#200	75	2.6	0.4
Hydrometer	36.3	1.0	1.5
	23.0	1.0	0.0
	13.3	1.0	0.0
- 1	9.4	1.0	0.0
	6.7	1.0	0.0
	3.2	0.6	0.4
V	1.4	0.6	0.1

Soil	Percent of
Classification	Total Sample
Gravel	19.4
Sand	78.1
Coarse Sand	25.9
Medium Sand	46.2
Fine Sand	6.0
Silt	1.5
Clay	1.0

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT **EASEAT** Client Code:

Project No.: 23046 Job No.: N/A

ETR(s) #: 95020 SDG(s): GCD003

Date Received: 26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536013DP

Sample ID: PSD-01REP

Percent Solids: Specific Gravity:

Non-soil mass:

84.7% 2.65 NA

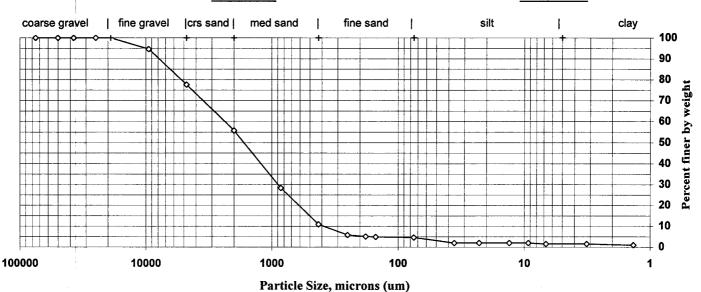
(assumed)

Maximum Particle Size: Shape (> #10): subrounded

19 mm

Hardness (> #10):

hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	94.6	5.4
#4	4750	77.6	17.0
#10	2000	55.7	21.9
#20	850	28.4	27.3
#40	425	11.0	17.4
#60	250	5.8	5.1
#80	180	5.0	0.8
#100	150	4.9	0.1
#200	75	4.6	0.3
Hydrometer	36.0	2.0	2.6
	22.8	2.0	0.0
	13.2	2.0	0.0
1	9.3	2.0	0.0
	6.7	1.5	0.5
	3.2	1.5	0.0
V	1.4	1.0	0.5

Soil	Percent of
Classification	Total Sample
Gravel	22.4
Sand	73.0
Coarse Sand	21.9
Medium Sand	44.7
Fine Sand	6.4
Silt	3.1
Clay	1.5

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: **EASEAT** Client Code: **EASEAT**

23046 Project No.: N/A Job No.:

ETR(s) #: 95020 SDG(s): GCD003

Date Received: 26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536014

1.1%

Sample ID: SSD-11

Percent Solids: 26.6%

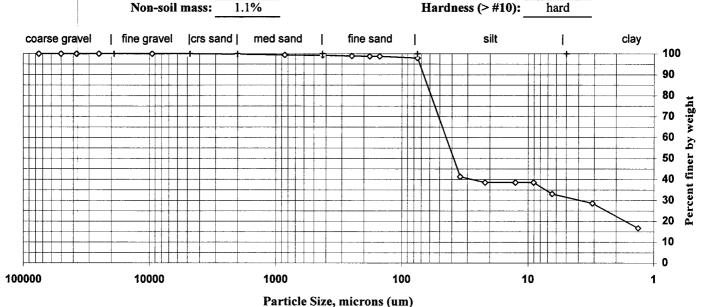
Specific Gravity:

2.65 (assumed) Shape (> #10): subangular

Maximum Particle Size: Crs sand

Hardness (> #10):

hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.8	0.2
#20	850	99.4	0.3
#40	425	99.3	0.2
#60	250	98.9	0.3
#80	180	98.8	0.1
#100	150	98.7	0.0
#200	75	97.9	0.8
Hydrometer	34.3	41.3	56.7
	21.8	38.5	2.7
	12.6	38.5	0.0
	9.0	38.5	0.0
I	6.5	33.1	5.4
	3.1	28.6	4.5
V	1.3	16.8	11.8

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	2.1
Coarse Sand	0.2
Medium Sand	0.5
Fine Sand	1.3
Silt	64.8
Clay	33.1

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT** Project No.: 23046 Job No.: N/A

ETR(s) #: 95020 SDG(s): GCD003

Date Received:

26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536015

Sample ID: SSD-43

Percent Solids: 12.7%

Specific Gravity:

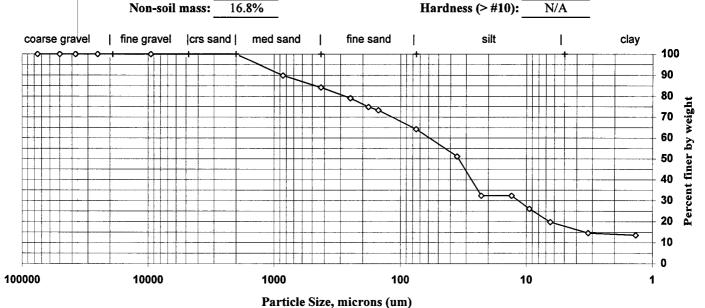
2.65

(assumed)

Maximum Particle Size: Med sand

Shape (> #10):

N/A Hardness (> #10): N/A



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	89.9	10.1
#40	425	84.2	5.7
#60	250	79.0	5.1
#80	180	74.9	4.1
#100	150	73.3	1.6
#200	75	64.2	9.1
Hydrometer	35.4	51.2	13.0
H	22.7	32.4	18.8
	13.1	32.4	0.0
	9.5	26.1	6.3
	6.4	19.8	6.3
	3.2	14.6	5.2
V	1.4	13.6	1.0

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	35.8
Coarse Sand	0.0
Medium Sand	15.8
Fine Sand	20.0
Silt	44.4
Clay	19.8

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT

EASEAT

Project No.: 23046 Job No.: N/A

ETR(s) #: 95020 SDG(s): GCD003

Client Code: Date Received:

26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536016

Sample ID: PSD-02

Percent Solids: 79.0%

Specific Gravity: Non-soil mass:

2.65 0.0%

(assumed)

Maximum Particle Size: Crs sand

Shape (> #10): subangular

Hardness (> #10):

brittle

coarse gravel | fine gravel |crs sand | med sand fine sand silt clay 100 90 80 70 60 50 40 30 20 10 0 100000 10000 1000 100 10 1

P	ar	ticl	le :	Size.	micro	nns ((um)	
	a ı	ucı		ひれんじゅ	THILLY.	OHS (um,	ı

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	93.5	6.5
#40	425	41.5	52.0
#60	250	13.7	27.7
#80	180	9.3	4.5
#100	150	9.0	0.3
#200	75	8.1	0.9
Hydrometer	36.2	2.7	5.4
	22.9	2.7	0.0
	13.2	2.7	0.0
	9.2	1.8	0.8
	6.6	1.8	0.0
	3.3	1.8	0.0
V	1.4	1.0	0.8

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	91.9
Coarse Sand	0.0
Medium Sand	58.5
Fine Sand	33.4
Silt	6.3
Clay	1.8

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Project No.: 23046 ETR(s) #: 95020 Client Code: **EASEAT** N/A Job No.: **SDG(s):** GCD003 Date Received: 26-Jul-03 Start Date: 12-Aug-03 End Date: 22-Aug-03

> Lab ID: 536017 Sample ID: PSD-42

Percent Solids: 22.9%

Maximum Particle Size: Med sand

Specific Gravity:

2.65 (assumed) Shape (>#10):

N/A Hardness (> #10): N/A

Non-soil mass: 0.9%

coarse gravel	fine gravel crs sand	med sand	fine sand	silt	clay
	 	 	a	•	+ 100
			200		90
					+ +
		 - - - -	l N	o	80 =
				\mathcal{N}	70 :5
					70 =
				+++	
 		 		++++	+ + 50 b
					40 €
					1 1
					30 🗒
				+++++++++++++++++++++++++++++++++++++++	> 20 ₺
 					+++++
					10
					0
100000	10000	1000	100	10	1

Particle	Size,	microns	(um)
-----------------	-------	---------	------

Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	98.5	1.5
#40	425	97.5	1.0
#60	250	96.2	1.3
#80	180	92.4	3.7
#100	150	90.0	2.5
#200	75	77.4	12.5
Hydrometer	34.1	51.1	26.3
I	21.8	44.8	6.3
1	12.6	44.8	0.0
	8.8	38.5	6.3
	6.5	32.2	6.3
	3.3	26.4	5.8
V	1.3	19.5	6.9

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	22.6
Coarse Sand	0.0
Medium Sand	2.5
Fine Sand	20.0
Silt	45.3
Clay	32.2

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: **EASEAT** Client Code: **EASEAT**

23046 Project No.: N/A Job No.:

ETR(s) #: 95020 SDG(s): GCD003

Date Received: 26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536018 Sample ID: RSD-02

Percent Solids: 87.3%

Maximum Particle Size:

19 mm

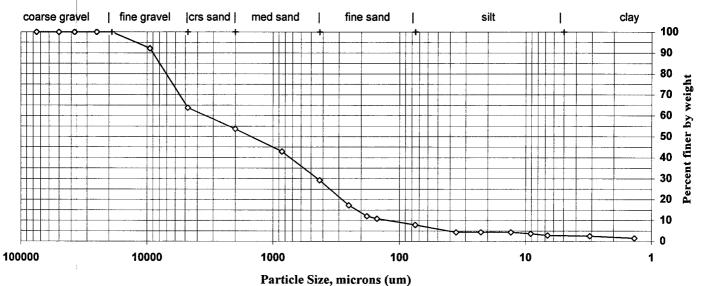
Specific Gravity: Non-soil mass:

2.65 0.0%

(assumed)

Shape (>#10): subangular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent

Sieve	Faiticle	refeent	merementar
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	92.2	7.8
#4	4750	63.7	28.5
#10	2000	53.7	10.1
#20	850	42.9	10.8
#40	425	29.3	13.6
#60	250	17.3	12.0
#80	180	12.0	5.2
#100	150	10.9	1.2
#200	75	7.9	3.0
Hydrometer	35.7	4.4	3.5
	22.6	4.4	0.0
	13.0	4.4	0.0
	9.1	3.7	0.7
	6.7	2.8	0.8
	3.1	2.5	0.4
V	1.4	1.5	0.9

Soil	Percent of
Classification	Total Sample
Gravel	36.3
Sand	55.8
Coarse Sand	10.1
Medium Sand	24.4
Fine Sand	21.4
Silt	5.0
Clay	2.8

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT** Project No.: 23046 Job No.: N/A

ETR(s) #: 95020 SDG(s): GCD003

Date Received: 26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536019 Sample ID: PSD-03

Percent Solids: 86.7%

Maximum Particle Size:

19 mm

Specific Gravity:

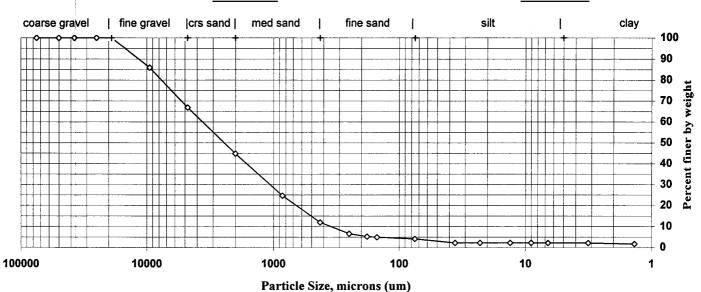
2.65 (assumed) Shape (>#10): subrounded

Non-soil mass:

NA

Hardness (> #10):

hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	85.9	14.1
#4	4750	66.9	19.1
#10	2000	44.8	22.0
#20	850	24.6	20.2
#40	425	12.0	12.7
#60	250	6.6	5.3
#80	180	5.2	1.4
#100	150	5.0	0.2
#200	75	4.2	0.8
Hydrometer	36.0	2.2	1.9
1	22.8	2.2	0.0
	13.2	2.2	0.0
	9.0	2.2	0.0
	6.6	2.1	0.1
	3.2	2.1	0.0
V	1.4	1.7	0.4

Soil	Percent of
Classification	Total Sample
Gravel	33.1
Sand	62.7
Coarse Sand	22.0
Medium Sand	32.9
Fine Sand	7.8
Silt	2.0
Clay	2.1

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT EASEAT Client Code:

23046 Project No.: N/A Job No.:

ETR(s) #: 95020 SDG(s): GCD003

Date Received: 26-Jul-03 Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536020 Sample ID: SSD-16

Percent Solids: 17.8%

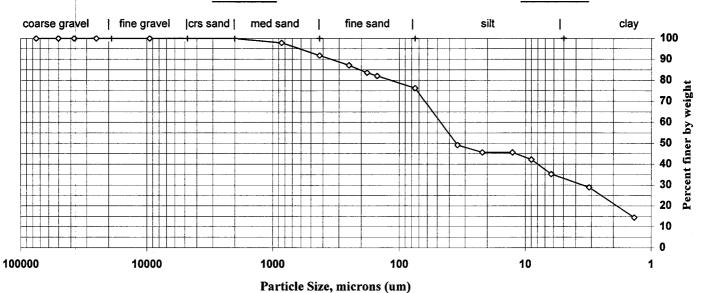
Maximum Particle Size: Crs sand

Specific Gravity: Non-soil mass:

2.65 (assumed) 0.2%

Shape (> #10): subrounded soft

Hardness (> #10):



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	97.9	2.1
#40	425	91.8	6.0
#60	250	87.2	4.7
#80	180	83.5	3.6
#100	150	82.0	1.5
#200	75	76.2	5.8
Hydrometer	34.4	49.1	27.1
	21.9	45.7	3.5
	12.6	45.7	0.0
	9.0	42.2	3.5
	6.3	35.3	6.9
	3.1	28.9	6.4
V	1.4	14.5	14.5

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	23.8
Coarse Sand	0.0
Medium Sand	8.1
Fine Sand	15.6
Silt	41.0
Clay	35.3

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT Client Code: **EASEAT** Project No.: Job No.: 23046 N/A

ETR(s) #: 95020 SDG(s): GCD003

Date Received:

26-Jul-03

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536021 Sample ID: SSD-10

Percent Solids: 18.8% Specific Gravity:

Non-soil mass:

2.65

1.0%

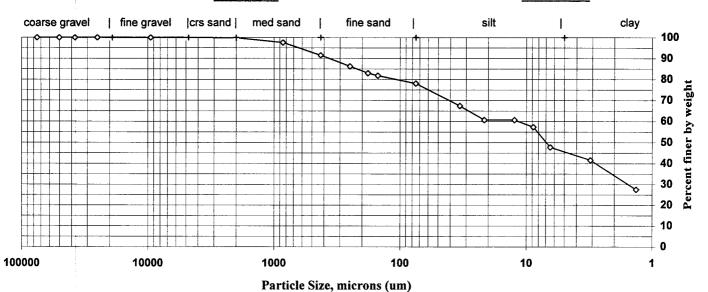
(assumed)

Maximum Particle Size:

Shape (> #10):

Crs sand angular

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.8	0.2
#20	850	97.6	2.3
#40	425	91.5	6.1
#60	250	86.2	5.2
#80	180	83.0	3.3
#100	150	81.8	1.1
#200	75	78.0	3.8
Hydrometer	33.7	67.4	10.6
	21.5	60.7	6.7
	12.4	60.7	0.0
	8.8	57.3	3.4
	6.5	47.8	9.6
	3.1	41.6	6.2
V	1.3	27.5	14.0

Soil	Percent of
Classification	Total Sample
Gravel	0.0
Sand	22.0
Coarse Sand	0.2
Medium Sand	8.4
Fine Sand	13.4
Silt	30.3
Clay	47.8

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method: D2

D2217

 Client:
 EASEAT
 Project No.:
 23046
 ETR(s) #:
 95020

 Client Code:
 EASEAT
 Job No.:
 N/A
 SDG(s):
 GCD003

 Date Received:
 26-Jul-03
 Start Date:
 12-Aug-03
 End Date:
 22-Aug-03

Lab ID: 536022 Sample ID: PSD-04

Percent Solids: 85.7%

Specific Gravity:

Non-soil mass:

2.65

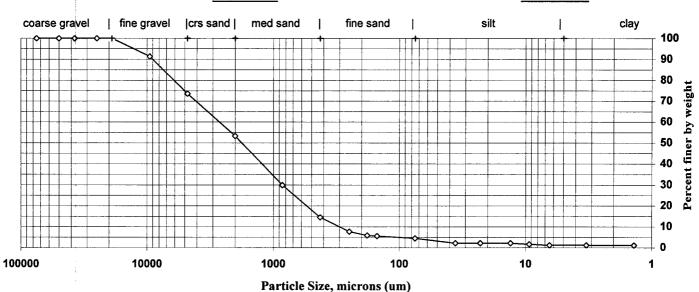
NA

(assumed)

Maximum Particle Size: 19 mm

Shape (> #10): subrounded

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	91.4	8.6
#4	4750	73.6	17.7
#10	2000	53.3	20.3
#20	850	29.9	23.4
#40	425	14.5	15.4
#60	250	7.7	6.8
#80	180	5.9	1.8
#100	150	5.6	0.3
#200	75	4.5	1.1
Hydrometer	36.0	2.2	2.2
	22.8	2.2	0.0
1	13.2	2.2	0.0
1	9.3	1.7	0.5
I	6.4	1.3	0.4
	3.3	1.3	0.0
V	1.4	1.2	0.1

Soil	Percent of
Classification	Total Sample
Gravel	26.4
Sand	69.2
Coarse Sand	20.3
Medium Sand	38.8
Fine Sand	10.0
Silt	3.2
Clay	1.3

Dispersion Device: Mechanical mixer with

a metal paddle.

Sample preparation method:

D2217

Client: EASEAT **Client Code: EASEAT**

23046 Project No.: Job No.: N/A

ETR(s) #: 95020 SDG(s): GCD003

Date Received: 26-Jul-03

0.0%

Start Date: 12-Aug-03

End Date: 22-Aug-03

Lab ID: 536023 Sample ID: RSD-04

Percent Solids: 83.4%

Specific Gravity: 2.65

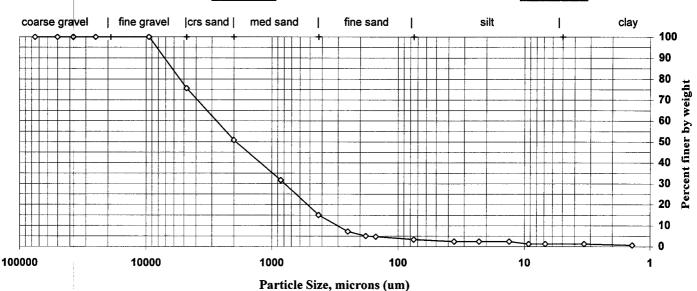
Non-soil mass:

(assumed)

Maximum Particle Size: Shape (> #10): subrounded

9.5 mm

Hardness (> #10): hard



Sieve	Particle	Percent	Incremental	
size	size, um	finer	percent	
3 inch	75000	100.0	0.0	
2 inch	50000	100.0	0.0	
1.5 inch	37500	100.0	0.0	
1 inch	25000	100.0	0.0	
3/4 inch	19000	100.0	0.0	
3/8 inch	9500	100.0	0.0	
#4	4750	75.6	24.4	
#10	2000	50.8	24.8	
#20	850	31.6	19.2	
#40	425	15.0	16.6	
#60	250	7.3	7.8	
#80	180	5.1	2.2	
#100	150	4.7	0.4	
#200	75	3.3	1.4	
Hydrometer	36.0	2.5	0.9	
	22.8	2.5	0.0	
	13.2	2.5	0.0	
	9.2	1.3	1.2	
i i	6.8	1.3	0.0	
	3.4	1.3	0.0	
V	1.4	0.7	0.6	

Soil	Percent of
Classification	Total Sample
Gravel	24.4
Sand	72.3
Coarse Sand	24.8
Medium Sand	35.8
Fine Sand	11.7
Silt	2.1
Clay	1.3

Dispersion Device: Mechanical mixer with

a metal paddle.

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCS002



September 23, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCS002

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 18 and 22, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client <u>Sample ID</u>	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/18/03 ETR N	No: 94855	
534799 534800 534801 534802 534803 534804 534805 534806 534807 534808 534809 534810 534811 534812	SHERWPSUS23(3.5) SHERWPSUS23(3.5)SPLP CAPMWPSUS20(4.0) CAPMWPSUS20(4.0)SPLP CAPMWPSUS21(2.5) CAPMWPSUS21(2.5)SPLP CAPMTASUS22(1.5) SHERTASUS25(1.5) CAPMWPSUS39(2.0) CAPMWPSUS39(2.0)SPLP GRANBGSSS34(0.5) GRANBGSSS34(0.5)SPLP GRANBGSSS35(0.5) GRANBGSSS35(0.5)	07/14/03 07/14/03 07/15/03 07/15/03 07/15/03 07/15/03 07/14/03 07/15/03 07/15/03 07/15/03 07/15/03 07/15/03 07/15/03	Soil Extract Soil Extract Soil Extract Soil Soil Extract Soil Extract Soil Extract Soil Extract Soil
534813 534814	GRANBGSSS36(0.5) GRANBGSSS36(0.5)SPLP	07/15/03 07/15/03	Extract
	Received: 07/22/03 ETR N	lo: 94964	
535438 535439 535440 535441 535442 535443	AJAXWPSUS08(1.2) AJAXWPSUS08(1.2)SPLP AJAXWPSUS09(1.0) AJAXWPSUS09(1.0)SPLP MAGNTASSS15(0.5) MAGNTASSS15(0.5)SPLP	07/17/03 07/17/03 07/17/03 07/17/03 07/19/03 07/19/03	Soil Extract Soil Extract Soil Extract

Lab ID	Client Sample ID	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/22/03 ETR No: 94	1964 (Cont.)	
535444 535445	MAGNTASSS15(0.5)(100) MAGNTASSS150.5100SPLP	07/19/03 07/19/03	Soil Extract
535446	LUCABGSSS19(0.5)	07/19/03	Soil
535447	LUCABGSSS19(0.5)SPLP	07/19/03	Extract
535448	MAGNTASUS18(1.5)	07/18/03	Soil
535449	MAGNPDSSS12(0.3)	07/18/03	Soil
535450	MAGNWPSSS16(0.5)	07/18/03	Soil
535451	MAGNWPSSS16(0.5)SPLP	07/18/03	Extract
535452	AJAXWPSUS10(2.0)	07/18/03	Soil
535453	AJAXWPSUS10(2.0)SPLP	07/18/03	Extract
535454	MAGNWPSUS14(3.0)	07/18/03	Soil
535454MS	MAGNWPSUS14(3.0)MS	07/18/03	Soil
535454DP	MAGNWPSUS14(3.0)REP	07/18/03	Soil
535455	MAGNWPSUS14(3.0)SPLP	07/18/03	Extract
535455MS	MAGNWPSUS143.0SPLPMS	07/18/03	Extract
535455DP	MAGNWPSUS143.0SPLPREP	07/18/03	Extract
535456	MAGNWPSUS17(2.0)	07/18/03	Soil
535457	MAGNWPSUS17(2.0)SPLP	07/18/03	Extract

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed. Please note that the "SPLP" suffix refers to the lab generated Synthetic Precipitation Leachate Procedure (SPLP) extract.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal. Please note the one of the containers for samples AJAXWPSUS08(1.2) and MAGNWPSUS14(3.0) were received broken but intact. The laboratory transferred all contents to clean containers upon arrival.

The analysis for hexavalent chromium was performed by STL's Chicago facility, as approved by EA Engineering. STL Chicago assigned "Lot" numbers as samples were received. Though laboratory numbers may differ, the client's sample identifications were maintained. The results for this delivery group including a case narrative prepared by the Chicago laboratory can be found at the end of the extended submittal.

The analysis for acid base accounting (ABA) was performed by BC Research Inc. Please note that the ABA results for these samples were included in SDG GCS003. These samples were inadvertently consolidated with that shipment.

Metals by ICP / CVAA

The percent difference between the original determinations and serial dilution determinations for beryllium (17.6%), calcium (12.4%), lead (14.0%), magnesium (12.5%), potassium (19.9%) and zinc (13.1%) in sample MAGNWPSUS14(3.0) were above the control criteria of $\pm 10\%$. Matrix interference is suspected and results have been flagged with an "E" accordingly.

The recoveries of antimony (22.2%), selenium (61.7%), and zinc (22.8%) from the laboratory fortified aliquot of sample MAGNWPSUS14(3.0) were below the laboratory control limit of 75-125%. Corresponding sample results have been flagged with an "N". Recovery from the laboratory control samples proved acceptable. Recovery from the post digestate spike of this same sample proved acceptable.

The relative percent differences (RPDs) between the initial and duplicate analysis of sample MAGNWPSUS14(3.0) for barium (70.7%), calcium (22.5%), lead (21.1%), magnesium (35.8%) and mercury (56.7%) were above the established control limit of ±20 percent. Corresponding sample results have been flagged with a "*" to denote this anomaly.

Please note that the following samples displayed a slight negative interference (concentration less than 0 but greater than -10 ppb) for cadmium: AJAXWPSUS08(1.2), MAGNWPSSS16(0.5), and MAGNWPSUS14(3.0).

For the analysis performed on ICP6 on August 28, 2003, the second continuing calibration blank failed slightly high for manganese (110.8%). The laboratory noted that all sample results reported for manganese from this analytical run were those that required dilutions for this element.

Reportable concentrations of the following metals were detected in one or more of the SPLP preparation blanks associated with this delivery group: lead, sodium, and zinc. The laboratory noted that the digestion preparation blanks associated with the above samples did not contain metals in concentrations greater than their respective reporting limits.

Please note that not all elements were included in the matrix spiking solution for the SPLP extract. The routine protocol of spiking with only the Toxicity Characteristic Leachate Procedure (TCLP) / SEM elements was followed. The spiking solution thus contained arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver plus copper and zinc.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page 0855.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely,

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/jtw/jmm

SEVERN TRENT LABORATORIES, INC. SEVERN STL

STL Burlington 208 South Park Drive, Suite 1 Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

Lab Use Only Due Date:	Temp. of coolers when received (C*):	1 2 3 4 5 Custody Seal N / V		Screened For Radioactivity				Supplied to the first of the fi	car, sample to (tab ose only)											Client's delivery of samples constitutes acceptance of Severn Trent Laboratories	terms and conditions contained in the Price Schedule.	O - Oil STL cannot accept verbal changes. Please Fax written changes to
ANALYSIS REQUESTED					2	R	14	PIN COUNTY	XXXX	X X X X	8 8 8 8 8	× ×	XXX	X X X X X	8888	メメ	× × × × ×	Time Remarks	Time	Time Client's de	- 6	Nastic or other
							No/Type of Containers ²	4 A/G 250 P/O	CR	8	B		-	હ		CR		Date	Date	Date	ر	C - Charco
Invoice to:	Address:	Contact:	Fax:		e's Signature	7	ATBESTED MINES NO	VOA	5 (3,5)	(4.0)	(2.5)	(1,5)	$\boldsymbol{\smile}$	1(2,0)	7+(a,5)	(8,8)	් (මප <u>)</u>	Received by: (Signature	Received by: (Signature	Received by: (Signature	L - Liquid A - Air had	250 ml - Glass w
	8 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>	-		Sample			s of Sample(s)	7-SUS-7	-Sos-	12-505-DN-MAK	-Sos-2	-505-25	P-505-3	6-555-3	£-525. =	5-525-3	Time	Time	Time	r S · Soil	./ or GI
Report to:	128 AN 4800	17400				Continenal	Project Name SIGAN TE (ROBK N	G I dentifying Marks of Sample(s)	X SHER-WP-SUS-23	VII.	X CADM-N	0 CAPM-TA-SOS-22	X SHER -TA-505-25	X CAPM-WP-SUS-39	XGRW-86-555-34	X GPAN-86-555-35	X 6840 - 86-555-36	Oate 7	Date	Date	Wastewater W - Water	
3	Address: Lou Le	Contacts, Pen El Phone: 425 451		Contract/ Quote:		Mes	Proj. No. Project 12890.13	Matrix ¹ Date Time 0 p	11 15 1530	1/6/12 to 3.5				"58355	1		S FEE	Relinquished by. (Signature)	Relinguished by: (Signature)	Relinquished by: (Signature)	, MM	ner VOA .

SEVERN STLL SEVERN TRENT LABORATORIES, INC.

STL Burlington 208 South Park Drive, Suite 1 Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD 50,1

Lab Use Only Due Date:	STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248
	St - Sludge 0 - Oil
Pake of Containers	C - Charcoal Tube 8
Invoice to: S: S: S: S: S: S: S:	soil L - Liquid A - Air bag 1 Liter 250 mi - Glass wide mouth
300 300 X-WP-SUS X-WP-S	iter W. Water S. Soil ial A/G. Amber / Or Glass 1 Liter
Report to: Company. 512 (MC) Machine Maddress: V20/1 (26) (145) - 740 Fax: 425 - 451 - 740 Froj. No. Proj. No. Proj. No. Sampler's Name Proj. No. Project Name Proj. No. Project Name ATM Sampler's Name Contract, Quote: Sampler's Name Froj. No. Project Name ATM Sampler's Name Sampler	'Matrix WW - Wastewater 'Container VOA - 40 ml vial

SEVERN TRENT SEVERN TRENT LABORATORIES, INC.

STL Burlington208 South Park Drive, Suite 1
Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD なみなり Soil

≻/N **≻** / **N** Lab/Sample ID (Lab Use Only) STL cannot accept verbal changes. Client's delivery of samples constitutes acceptance of Severn Trent Laboratories when received (C°): Please Fax written changes to Screened For Radioactivity Temp. of coolers Lab Use Only Due Date: **Custody Seal** (802) 655-1248 2 Intact Ž terms and conditions contained in the Price Schedule. ō . uninely 0 × X X X Remarks X SL - Sludge メ X REQUESTED X ANALYSIS PL Time /07 o P/0 - Plastic or other _ Х Y Time Time X × メ Date 7/22/03 C - Charcoal Tube P/0 Date Date No/Type of Containers² 250 m N 3 ल A/G 1.Lt 250 ml - Glass wide mouth Ø A - Air bag Invoice to: MAGN-WP-SUS-14 (3.0) mg Received by: (Signature Received by: (Signature Received by: (Signature A3AX-180-SUS-10 (2.0) L - Liquid MAGW - WP - SUS-17 (2.0 Sampler's Signature Phone: Fax: Address:_ Contact: Company: A/G - Amber / Or Glass 1 Liter Soil Identifying Marks of Sample(s) Time Time Address: 12 oll 3 el-Red Rd Suste 大田ノ W - Water Beleuve, WA 98005 Date Fax: 425-451-7800 Phone: 425-451-7400 Se p Contact: Jen Kind red James Godhar Report to: WW - Wastewater Project Name VOA - 40 ml viat X X × Relinduished by: (Signature) iquished by: (Signature ٥٥٤٥ quished by: (Signature 7/16/03/1320 7/8/61240 18 ESS Matrix¹ Date Time Sampler's Name 88 Company:_ Quote: Contract/ 2Container Proj. No. ¹Matrix

21/8234-200 (12/02)

SEVERN STL

Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

SHERWPSUS23(3.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534799

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 93.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	7.0	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		93.0	;
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Sample Report Summary

Client Sample No.

CAPMWPSUS20(4.0)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534801

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 91.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	7.4	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		91.2	
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Sample Report Summary

Client Sample No.

CAPMWPSUS21(2.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534803

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 92.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	8.0	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		92.8	
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Sample Report Summary

Client Sample No.

CAPMTASUS22(1.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534805

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 86.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	7.1	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		86.5	
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Sample Report Summary

Client Sample No.

SHERTASUS25(1.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534806

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 93.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	6.8	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		93.0	
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Sample Report Summary

Client Sample No.

CAPMWPSUS39(2.0)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534807

Matrix: SOIL

Client: EASEAT.

Date Received: 07/18/03

% Solids: 91.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	4.9	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		91.4	
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Sample Report Summary

Client Sample No.

GRANBGSSS34(0.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534809

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 78.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	6.4	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		78.1	
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Sample Report Summary

Client Sample No.

GRANBGSSS35(0.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534811

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 73.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рH	1	0.000	6.7	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		73.7	
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Sample Report Summary

Client Sample No.

GRANBGSSS36(0.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534813

Matrix: SOIL

Client: EASEAT

Date Received: 07/18/03

% Solids: 91.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	6.6	
IN623	Solids, Percent	07/22/03	N/A	%	1.0		91.6	
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Sample Report Summary

Client Sample No.

AJAXWPSUS08(1.2)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535438

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 89.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	7.8	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		89.6	

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Sample Report Summary

Client Sample No.

AJAXWPSUS09(1.0)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535440

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 95.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	8.2	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		95.1	
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Sample Report Summary

Client Sample No.

MAGNTASSS15(0.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535442

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 93.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	4.5	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		93.6	
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Sample Report Summary

Client Sample No.

MAGNTASSS15(0.5)(100)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535444

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 93.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	4.5	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		93.9	
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Sample Report Summary

Client Sample No.

LUCABGSSS19(0.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535446

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 92.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03	7	рН	1	0.000	5.9	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		92.5	
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Sample Report Summary

Client Sample No.

MAGNTASUS18(1.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535448

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 92.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	7.2	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		92.4	
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Sample Report Summary

Client Sample No.

MAGNPDSSS12(0.3)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535449

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 31.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	7.7	
IN623	Solids, Percent	07/31/03	N/A	%	1.0		31.3	
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Sample Report Summary

Client Sample No.

MAGNWPSSS16(0.5)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535450

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 91.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	2.7	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		91.0	
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Sample Report Summary

Client Sample No.

AJAXWPSUS10(2.0)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535452

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 92.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	3.9	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		92.1	
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Duplicate Sample Report Summary

Client Sample No.

MAGNWPSUS14(3.0)REP

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535454DP

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 89.1

		Analytical	Analytical		Sam	Sample Result		Duplicate		
Method	Parameter	Analytical Run Date	Batch	Units	Conc.	Qual.	Sample Conc.	Qual.	RPD*	
9040B	Corrosivity by pH	07/26/03		pН	5.7		5.7		0	
IN623	Solids, Percent	07/29/03	N/A	%	88.4		89.1		1	
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* Control Limit for RPD is +/- 20%, unless otherwise specified.

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Sample Report Summary

Client Sample No.

MAGNWPSUS14(3.0)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535454

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 88.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		рН	1	0.000	5.7	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		88.4	
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WET CHEMISTRY

Sample Report Summary

Client Sample No.

MAGNWPSUS17(2.0)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535456

Matrix: SOIL

Client: EASEAT

Date Received: 07/22/03

% Solids: 95.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9040B	Corrosivity by pH	07/26/03		pН	1	0.000	7.7	
IN623	Solids, Percent	07/29/03	N/A	%	1.0		95.0	
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WET CHEMISTRY

Laboratory Control Sample Report Summary

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCS Conc.	True Value	% Recovery*
LCSPH0726A	9040B	Corrosivity by pH	07/26/03		рH	6.0	6.0000	100.5
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.

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WET CHEMISTRY

Laboratory Control Sample Duplicate Report Summary

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCS002

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCSD Conc.	True Value	% Recovery*	RPD**
LCSDPH0726A	9040B	Corrosivity by pH	07/26/03		pН	6.0	6.0000	100.3	0
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.
** Control Limit for RPD is +/- 20%, unless otherwise specified.

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Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name:	STL BURLINGTON Co	ontract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.: SDO	G No.: GCS002
	ILM04.1		
5011 110		Lab Sample ID.	
	EPA Sample No.		
	AJAXWPSUS08(1.2)	535438	
	AJAXWPSUS09(1.0)	535440	
	AJAXWPSUS10 (2.0)	<u>535452</u> 534805	
	CAPMTASUS22 (1.5)	534801	
	CAPMWPSUS20 (4.0)	534803	
	CAPMWPSUS21 (2.5)	534807	
	CAPMWPSUS39 (2.0)	534809	···
	GRANBGSSS34 (0.5)	534811	
	GRANBGSSSSSS (0.5)	534813	
	GRANBGSSS36(0.5)	535446	
	LUCABGSSS19(0.5)	535449	
	MAGNPDSSS12 (0.3) MAGNTASSS15 (0.5)	535449	
	MAGNTASSS15 (0.5) MAGNTASSS15 (0.5) (100)	535444	
	MAGNTASSS15 (U.5) (100)	535448	·
	MAGNWPSSS16(0.5)	535450	
	MAGNWPSUS14 (3.0)	535454	
	MAGNWPSUS14 (3.0) D	535454DP	
	MAGNWPSUS14 (3.0) S	535454MS	
	MAGNWPSUS17 (2.0)	535456	
	SHERTASUS25 (1.5)	534806	
	SHERWPSUS23 (3.5)	534799	
	SHERWESUS23 (3.3)		
Were ICF	interelement corrections applied?	•	Yes/No YES
Were ICE	background corrections applied?		Yes/No YES
If	yes-were raw data generated before	e e e e e e e e e e e e e e e e e e e	
app	plication of background corrections	s?	Yes/No NO
Comments:			
contract above.	y that this data package is in com , both technically and for complet Release of the data contained in t -readable data submitted on disket or the Manager's designee, as veri	eness, for other than the chis hardcopy data package to the has been authorized by	conditions detailed and in the the Laboratory
Signature	:	Name:	
Date:		Title:	

COVER PAGE - IN

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPSUS08(1.2)

Lab Name:	STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT	ase No.: 23046	SAS No.:	SDG No.: GCS002
Matrix (so:	il/water): SOI	L	Lab Sample ID:	535438
Level (low,	/med): LOW		Date Received:	07/22/03

% Solids: 89.6

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	3870			P
7440-36-0	Antimony	6.2		и	P
7440-38-2	Arsenic	411			P
7440-39-3	Barium	25.5		*	P
7440-41-7	Beryllium	0.59		E	P
7440-43-9	Cadmium	0.030	שן		P
7440-70-2	Calcium	5800		E*	P
7440-47-3	Chromium	14.3			P
7440-48-4	Cobalt	14.6			P
7440-50-8	Copper	58.7	1		P
7439-89-6	Iron	37500			P
7439-92-1	Lead	8.4	1	E*	P
7439-95-4	Magnesium	3600		E*	P
7439-96-5	Manganese	1700			P
7439-97-6	Mercury	1.2		*	CV
7440-02-0	Nickel	27.4			P
7440-09-7	Potassium	1430		E	P
7782-49-2	Selenium	1.6		N	P
7440-22-4	Silver	0.77	В		P
7440-23-5	Sodium	39.6	В		P
7440-28-0	Thallium	2.6			P
7440-62-2	Vanadium	19.4		1	P
7440-66-6	Zinc	71.0		NE	P
57-12-5	Cyanide	0.42	שן		AS

Color Befor	e: brown	Clarity Before:		Texture:	medium
Color After	: yellow	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPS	US09 ((1.	0)	

Lab Name: STL BURLINGTON		Contract: 23046	
Lab Code: STLV	VT Case No.: 23046	SAS No.:	SDG No.: GCS002
Matrix (soil/wa	ater): SOIL	Lab Sample ID:	535440
Level (low/med)): <u>LOW</u>	Date Received:	07/22/03

% Solids: 95.1

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	2660			P
7440-36-0	Antimony	3.3	В	N	P
7440-38-2	Arsenic	154			P
7440-39-3	Barium	38.7		*	P
7440-41-7	Beryllium	0.46		E	P
7440-43-9	Cadmium	0.025	ט	1	P
7440-70-2	Calcium	25100		E*	P
7440-47-3	Chromium	8.0		1	P
7440-48-4	Cobalt	7.8			P
7440-50-8	Copper	67.9			P
7439-89-6	Iron	23400			P
7439-92-1	Lead	5.0		E*	P
7439-95-4	Magnesium	9600		E*	P
7439-96-5	Manganese	2130]	P
7439-97-6	Mercury	1.9		*	CV
7440-02-0	Nickel	22.7		1	P
7440-09-7	Potassium	1990	Ï	E	P
7782-49-2	Selenium	0.96		N	P
7440-22-4	Silver	0.32	В		P
7440-23-5	Sodium	145	В	1	P
7440-28-0	Thallium	2.4			P
7440-62-2	Vanadium	15.1		1	P
7440-66-6	Zinc	47.3		NE	P
57-12-5	Cyanide	0.50	טן	1	AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPSUS10(2.0)

Lab Name: 5	STL BURLINGTON		Cd	Contract: 23046				
Lab Code: §	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCS002	
Matrix (soi	1/water): §	SOIL		Lab	Sample ID:	535452		
Level (low/	med) · IOW			Date	Received:	07/22/03		

% Solids: 92.1

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	18800			P
7440-36-0	Antimony	1.6	В	N	P
7440-38-2	Arsenic	95.7			P
7440-39-3	Barium	186		*	P
7440-41-7	Beryllium	0.89		E	P
7440-43-9	Cadmium	0.025	טן		P
7440-70-2	Calcium	985		E*	P
7440-47-3	Chromium	39.5	Ī		P
7440-48-4	Cobalt	16.8	1		P
7440-50-8	Copper	84.7	1		P
7439-89-6	Iron	35500			P
7439-92-1	Lead	9.7		E*	P
7439-95-4	Magnesium	4260		E*	P
7439-96-5	Manganese	762			P
7439-97-6	Mercury	0.43		*	cv
7440-02-0	Nickel	26.8			P
7440-09-7	Potassium	3730	Ī	E	P
7782-49-2	Selenium	1.1		И	P
7440-22-4	Silver	1.4	Ī		P
7440-23-5	Sodium	714			P
7440-28-0	Thallium	1.5			P
7440-62-2	Vanadium	65.8		1	P
7440-66-6	Zinc	87.4	1	NE	P
57-12-5	Cyanide	0.52	שן	1	AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					

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INORGANIC ANALYSES DATA SHEET

Date Received:

07/18/03

EPA SAMPLE NO.

CAPMTASUS22 (1.5)

Lab Name:	STL BURLINGT	ON		Contract:	23046		. **	
Lab Code:	STLVT	Case No.:	23046	SAS No.	:	SDG	No.:	GCS002
Matrix (so:	il/water): S	OIL		La	b Sample 1	ID: <u>534</u>	805	

% Solids: 86.5

Level (low/med): LOW

			Τ.	T	T T
CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	12500		ĺ	P
7440-36-0	Antimony	0.68	В	и	P
7440-38-2	Arsenic	6.3			P
7440-39-3	Barium	155		*	P
7440-41-7	Beryllium	0.38	В	E	P
7440-43-9	Cadmium	0.030	U		P
7440-70-2	Calcium	1940		E*	P
7440-47-3	Chromium	5.2		1	P
7440-48-4	Cobalt	8.0	Ī	1	P
7440-50-8	Copper	3.3		1	P
7439-89-6	Iron	16300			P
7439-92-1	Lead	2.8		E*	P
7439-95-4	Magnesium	5180		E*	P
7439-96-5	Manganese	408		1	P
7439-97-6	Mercury	0.058		*	cv
7440-02-0	Nickel	3.8	В	1	P
7440-09-7	Potassium	3720		E	P
7782-49-2	Selenium	0.24	B	И	P
7440-22-4	Silver	0.28	В		P
7440-23-5	Sodium	982			P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	40.6		1	P
7440-66-6	Zinc	41.8		NE	P
57-12-5	Cyanide	0.56	טן		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments: —					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPSUS20 (4.0)

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Lab Sample ID: 534801

Level (low/med): LOW Date Received: 07/18/03

% Solids: 91.2

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	15600	1		P
7440-36-0	Antimony	0.38	B	N	P
7440-38-2	Arsenic	10.1			P
7440-39-3	Barium	180		*	P
7440-41-7	Beryllium	0.48		E	P
7440-43-9	Cadmium	0.027	שן		P
7440-70-2	Calcium	2850		E*	P
7440-47-3	Chromium	8.4			P
7440-48-4	Cobalt	9.1			P
7440-50-8	Copper	5.5			P
7439-89-6	Iron	19700			P
7439-92-1	Lead	3.6		E*	P
7439-95-4	Magnesium	5320		E*	P
7439-96-5	Manganese	270]	P
7439-97-6	Mercury	0.026	В	*	CV
7440-02-0	Nickel	4.3	Ī	1	P
7440-09-7	Potassium	4080		E	P
7782-49-2	Selenium	0.31	שן	N	P
7440-22-4	Silver	0.63	В		P
7440-23-5	Sodium	1100			P
7440-28-0	Thallium	0.25	U		P
7440-62-2	Vanadium	52.2			P
7440-66-6	Zinc	48.6		NE	P
57-12-5	Cyanide	0.54	שן		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments: —	6.0				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPSUS21 (2.5)

Lab Name:	STL BURLING	TON		Contract: 23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.:	GCS002
Matrix (so	oil/water):	SOIL		Lab Sample ID:	534803	
Level (low	r/med): LO	W		Date Received:	07/18/03	

% Solids: 92.8

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	10400			P
7440-36-0	Antimony	2.0	В	И	P
7440-38-2	Arsenic	198			P
7440-39-3	Barium	177		*	P
7440-41-7	Beryllium	0.50		E	P
7440-43-9	Cadmium	14.1		1	P
7440-70-2	Calcium	6320		E*	P
7440-47-3	Chromium	5.5		Ī	P
7440-48-4	Cobalt	7.4		<u> </u>	P
7440-50-8	Copper	43.5			P
7439-89-6	Iron	20700			P
7439-92-1	Lead	44.1	Π	E*	P
7439-95-4	Magnesium	2980		E*	P
7439-96-5	Manganese	504			P
7439-97-6	Mercury	0.30	\Box	*	cv
7440-02-0	Nickel	4.1			P
7440-09-7	Potassium	3240	1	E	P
7782-49-2	Selenium	0.40	В	N	P
7440-22-4	Silver	4.2		[P
7440-23-5	Sodium	122	В	1	P
7440-28-0	Thallium	0.45	В		P
7440-62-2	Vanadium	33.9			P
7440-66-6	Zinc	495		NE	P
57-12-5	Cyanide	0.54	ט	1	AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments: -	•				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPSUS39(2.0)

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002

 Matrix (soil/water):
 SOIL
 Lab Sample ID:
 534807

% Solids: 91.4

Level (low/med): LOW

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Date Received: 07/18/03

CAS No.	Analyte	Concentration	Гс	0	м
CAS NO.				~	
7429-90-5	Aluminum	14900			P
7440-36-0	Antimony	0.61	В	И	P
7440-38-2	Arsenic	17.5			P
7440-39-3	Barium	167		*	P
7440-41-7	Beryllium	0.44	T	E	P
7440-43-9	Cadmium	0.025	ען		P
7440-70-2	Calcium	905		E*	P
7440-47-3	Chromium	9.7	I		P
7440-48-4	Cobalt	9.6		1	P
7440-50-8	Copper	11.0]	P
7439-89-6	Iron	19600			P
7439-92-1	Lead	4.2	1	E*	P
7439-95-4	Magnesium	4560		E*	P
7439-96-5	Manganese	321			P
7439-97-6	Mercury	0.064		*	CV
7440-02-0	Nickel	4.8			P
7440-09-7	Potassium	3560		E	P
7782-49-2	Selenium	0.40	В	и	P
7440-22-4	Silver	0.79	В		P
7440-23-5	Sodium	1060			P
7440-28-0	Thallium	0.23	טן		P
7440-62-2	Vanadium	52.2			P
7440-66-6	Zinc	50.5		NE	P
57-12-5	Cyanide	0.54	טן		AS

Color	Before:	brown	Clarity	Before:		Texture:	medium
Color	After:	yellow	Clarity	After:	clear	Artifacts:	
Commen	nts:						

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

		4
GRANBGSSS34 ((0.5)	

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Lab Sample ID: 534809

Level (low/med): LOW Date Received: 07/18/03

% Solids: 78.1

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	26400	1	ĺ	P
7440-36-0	Antimony	0.38	ן ט	И	P
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	187		*	P
7440-41-7	Beryllium	0.72		E	P
7440-43-9	Cadmium	0.35	В		P
7440-70-2	Calcium	1130		E*	P
7440-47-3	Chromium	5.7	Π		P
7440-48-4	Cobalt	5.5	T		P
7440-50-8	Copper	8.9		1	P
7439-89-6	Iron	10800		Ī	P
7439-92-1	Lead	3.8		E*	P
7439-95-4	Magnesium	880		E*	P
7439-96-5	Manganese	429		1	P
7439-97-6	Mercury	0.032	В	*	CV
7440-02-0	Nickel	5.2			P
7440-09-7	Potassium	848		E	P
7782-49-2	Selenium	0.61	Ī	N	P
7440-22-4	Silver	0.28	В		P
7440-23-5	Sodium	1220			P
7440-28-0	Thallium	0.28	ט		P
7440-62-2	Vanadium	24.9			P
7440-66-6	Zinc	50.2		NE	P
57-12-5	Cyanide	0.63	שן		AS

Color Before	: brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGSSS35(0.5)

Lab Name:	STL BURLINGTO	N	Co:	ntract: 23046			
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG	No.: 9	GCS002
Matrix (so	il/water): <u>SO</u>	IL		Lab Sample	ID: <u>5348</u>	11	
Level (low,	/med): LOW			Date Receiv	red: <u>07/1</u>	.8/03	

% Solids: 73.7

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	31200			P
7440-36-0	Antimony	0.40	שן	И	P
7440-38-2	Arsenic	5.5			P
7440-39-3	Barium	268	1	*	P
7440-41-7	Beryllium	1.0	1	E	P
7440-43-9	Cadmium	0.54			P
7440-70-2	Calcium	2110		E*	P
7440-47-3	Chromium	6.2			P
7440-48-4	Cobalt	6.7			P
7440-50-8	Copper	15.4		1	P
7439-89-6	Iron	12400			P
7439-92-1	Lead	5.9		E*	P
7439-95-4	Magnesium	1560		E*	P
7439-96-5	Manganese	156		1	P
7439-97-6	Mercury	0.035	B	*	CV
7440-02-0	Nickel	5.6		1	P
7440-09-7	Potassium	1140		E	P
7782-49-2	Selenium	0.42	В	N	P
7440-22-4	Silver	0.62	В	l	P
7440-23-5	Sodium	1450			P
7440-28-0	Thallium	0.29	ש		P
7440-62-2	Vanadium	26.5		1	P
7440-66-6	Zinc	43.2		NE	P
57-12 - 5	Cyanide	0.68	Ū		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGSSS36(0.5)

Lab Name:	STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Ca	se No.: 23046	SAS No.:	SDG No.: GCS002
Matrix (soi	il/water): SOII		Lab Sample ID:	534813
Level (low,	med): LOW	<u> </u>	Date Received:	07/18/03

% Solids: 91.6

CAS No.	Analyte	Concentration	С	Q	М
					<u> </u>
7429-90-5	Aluminum	19400			P
7440-36-0	Antimony	0.33	שן	И	P
7440-38-2	Arsenic	11.4			P
7440-39-3	Barium	319		*	P
7440-41-7	Beryllium	0.55		E	P
7440-43-9	Cadmium	0.026	U		P
7440-70-2	Calcium	2080		E*	P
7440-47-3	Chromium	27.4			P
7440-48-4	Cobalt	10.2			P
7440-50-8	Copper	11.0			P
7439-89-6	Iron	17700			P
7439-92-1	Lead	6.3		E*	P
7439-95-4	Magnesium	4930		E*	P
7439-96-5	Manganese	610	1		P
7439-97-6	Mercury	0.027	В	*	CV
7440-02-0	Nickel	23.4			P
7440-09-7	Potassium	3920		E	P
7782-49-2	Selenium	0.24	B	N	P
7440-22-4	Silver	0.48	В	1	P
7440-23-5	Sodium	1180			P
7440-28-0	Thallium	0.24	Ū		P
7440-62-2	Vanadium	47.2		1	P
7440-66-6	Zinc	61.3		NE	P
57-12-5	Cyanide	0.55	Ū		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LUCABGSSS19(0.5)

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Lab Sample ID: 535446

Level (low/med): LOW Date Received: 07/22/03

% Solids: 92.5

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	24400	+	<u> </u>	P
7440-36-0	Antimony	0.84	В	N	P
7440-38-2	Arsenic	4.5			P
7440-39-3	Barium	288		*	P
7440-41-7	Beryllium	1.2	Π	E	P
7440-43-9	Cadmium	0.43	В		P
7440-70-2	Calcium	1830	1	E*	P
7440-47-3	Chromium	31.3			P
7440-48-4	Cobalt	11.3			P
7440-50-8	Copper	30.7			P
7439-89-6	Iron	24600			P
7439-92-1	Lead	8.4		E*	P
7439-95-4	Magnesium	2630		E*	P
7439-96-5	Manganese	837			P
7439-97-6	Mercury	0.14		*	CV
7440-02-0	Nickel	23.4	1		P
7440-09-7	Potassium	1570		E	P
7782-49-2	Selenium	0.76		N	P
7440-22-4	Silver	0.26	В		P
7440-23-5	Sodium	806	l		P
7440-28-0	Thallium	0.97			P
7440-62-2	Vanadium	47.8			P
7440-66-6	Zinc	105		NE	P
57-12-5	Cyanide	0.54	שן		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNPDSSS12(0.3)

Lab	Name:	STL BURLINGTON	Contract:	23046	
Lab	Name:	STL BURLINGTON	Contract:	23046	

Matrix (soil/water): SOIL Lab Sample ID: 535449

Level (low/med): LOW Date Received: 07/22/03

% Solids: 31.3

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	14000			P
7440-36-0	Antimony	17.1		И	P
7440-38-2	Arsenic	3730			P
7440-39-3	Barium	273		*	P
7440-41-7	Beryllium	3.4		E	P
7440-43-9	Cadmium	16.9			P
7440-70-2	Calcium	19200		E*	P
7440-47-3	Chromium	22.0		1	P
7440-48-4	Cobalt	301			P
7440-50-8	Copper	310		1	P
7439-89-6	Iron	139000			P
7439-92-1	Lead	151		E*	P
7439-95-4	Magnesium	4540		E*	P
7439-96-5	Manganese	34300		J	P
7439-97-6	Mercury	9.0		*	CV
7440-02-0	Nickel	888		1	P
7440-09-7	Potassium	3180		E	P
7782-49-2	Selenium	11.6		N	P
7440-22-4	Silver	12.1		1	P
7440-23-5	Sodium	54.2	U		P
7440-28-0	Thallium	36.3			P
7440-62-2	Vanadium	34.2			P
7440-66-6	Zinc	1620		NE	P
57-12-5	Cyanide	4.9		1	AS

Color	Before:	brown	Clarity Before:		Texture:	medium
Color	After:	yellow	Clarity After:	clear	Artifacts:	
Commer	nts:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNTASSS15(0.5)

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Lab Sample ID: 535442

Level (low/med): LOW Date Received: 07/22/03

% Solids: 93.6

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	3300			P
7440-36-0	Antimony	17.6		и	P
7440-38-2	Arsenic	828			P
7440-39-3	Barium	72.5	1	*	P
7440-41-7	Beryllium	0.18	В	E	P
7440-43-9	Cadmium	0.56			P
7440-70-2	Calcium	821		E*	P
7440-47-3	Chromium	5.0			P
7440-48-4	Cobalt	3.6	В		P
7440-50-8	Copper	35.4			P
7439-89-6	Iron	24700			P
7439-92-1	Lead	524		E*	P
7439-95-4	Magnesium	1060		E*	P
7439-96-5	Manganese	130			P
7439-97-6	Mercury	9.4		*	CV
7440-02-0	Nickel	6.7			P
7440-09-7	Potassium	2280		E	P
7782-49-2	Selenium	3.7		и	P
7440-22-4	Silver	37.2			P
7440-23-5	Sodium	152	В		P
7440-28-0	Thallium	1.9			P
7440-62-2	Vanadium	30.5			P
7440-66-6	Zinc	73.0		NE	P
57-12-5	Cyanide	0.53	טן		AS

Color 1	Before:	brown	Clarity Before:		Texture:	medium
Color A	After:	yellow	Clarity After:	clear	Artifacts:	
Commen	ts:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNTASSS15 (0.5) (100)

Lab Name: S	STL BURLINGTO	ONNC	Co	ntract:	23046		
Lab Code: §	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCS002
Matrix (soi	l/water): S	OIL		Lab	Sample ID:	535444	

% Solids: 93.9

Level (low/med): LOW

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Date Received: 07/22/03

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	4690			P
7440-36-0	Antimony	41.6		и	P
7440-38-2	Arsenic	1130	Ī	1	P
7440-39-3	Barium	197		*	P
7440-41-7	Beryllium	0.14	В	E	P
7440-43-9	Cadmium	0.16	В	1	P
7440-70-2	Calcium	864		E*	P
7440-47-3	Chromium	12.1			P
7440-48-4	Cobalt	4.8		Ī	P
7440-50-8	Copper	43.7			P
7439-89-6	Iron	36000		1	P
7439-92-1	Lead	846		E*	P
7439-95-4	Magnesium	1800		E*	P
7439-96-5	Manganese	195			P
7439-97-6	Mercury	8.6	1	*	cv
7440-02-0	Nickel	8.6			P
7440-09-7	Potassium	3940		E	P
7782-49-2	Selenium	5.5		И	P
7440-22-4	Silver	34.1			P
7440-23-5	Sodium	277	В		P
7440-28-0	Thallium	3.0		1	P
7440-62-2	Vanadium	41.0		1	P
7440-66-6	Zinc	73.1	Ī	NE	P
57-12-5	Cyanide	0.47	טן	1	AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNTASUS18 (1.5)

Lab	Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

Matrix (soil/water): SOIL Lab Sample ID: 535448

Level (low/med): LOW Date Received: 07/22/03

% Solids: 92.4

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	23200	T		P
7440-36-0	Antimony	0.97	В	И	P
7440-38-2	Arsenic	32.6	Ī	ĺ	P
7440-39-3	Barium	328		*	P
7440-41-7	Beryllium	1.1	1	E	P
7440-43-9	Cadmium	0.025	U		P
7440-70-2	Calcium	1040	1	E*	P
7440-47-3	Chromium	24.4			P
7440-48-4	Cobalt	14.1	1		P
7440-50-8	Copper	40.2			P
7439-89-6	Iron	26800	1		P
7439-92-1	Lead	9.8		E*	P
7439-95-4	Magnesium	4570		E*	P
7439-96-5	Manganese	614			P
7439-97-6	Mercury	0.12		*	cv
7440-02-0	Nickel	18.8		1	P
7440-09-7	Potassium	5260		E	P
7782-49-2	Selenium	0.67		N	P
7440-22-4	Silver	0.48	В		P
7440-23-5	Sodium	869			P
7440-28-0	Thallium	0.96			P
7440-62-2	Vanadium	72.8			P
7440-66-6	Zinc	91.4		NE	P
57-12-5	Cyanide	0.49	טן		AS

Color Before	e: brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPSSS16(0.5)

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Lab Sample ID: 535450

Level (low/med): LOW Date Received: 07/22/03

% Solids: 91.0

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	6740			P
7440-36-0	Antimony	5.7		N	P
7440-38-2	Arsenic	317			P
7440-39-3	Barium	70.0	1	*	P
7440-41-7	Beryllium	0.42	В	E	P
7440-43-9	Cadmium	0.028	שן	1	P
7440-70-2	Calcium	2330		E*	P
7440-47-3	Chromium	11.2	Ī		P
7440-48-4	Cobalt	5.8			P
7440-50-8	Copper	50.2	T	[P
7439-89-6	Iron	30500		<u> </u>	P
7439-92-1	Lead	17.0		E*	P
7439-95-4	Magnesium	1140		E*	P
7439-96-5	Manganese	193		1	P
7439-97-6	Mercury	0.88		*	cv
7440-02-0	Nickel	13.0		1	P
7440-09-7	Potassium	2610		E	P
7782-49-2	Selenium	1.6	T	и	P
7440-22-4	Silver	2.2	1	1	P
7440-23-5	Sodium	173	В		P
7440-28-0	Thallium	1.2			P
7440-62-2	Vanadium	43.3		1	P
7440-66-6	Zinc	56.2		NE	P
57-12-5	Cyanide	0.53	שן		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:	1.1.				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPSUS14(3.0)

Lab Name:	STL BURLINGT	ON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	_ SAS No.:		SDG No.:	GCS002
Matrix (so	il/water): S	OIL	·	Lab	Sample ID:	535454	
Level (low,	/med): <u>LOW</u>			Dat	e Received:	07/22/03	

% Solids: 88.4

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	7290			P
7440-36-0	Antimony	10.6		И	P
7440-38-2	Arsenic	1220			P
7440-39-3	Barium	131		*	P
7440-41-7	Beryllium	1.2		E	P
7440-43-9	Cadmium	0.027	U	1	P
7440-70-2	Calcium	11900	T	E*	P
7440-47-3	Chromium	10.8			P
7440-48-4	Cobalt	18.0			P
7440-50-8	Copper	61.2			P
7439-89-6	Iron	75700	1		P
7439-92-1	Lead	31.7	1	E*	P
7439-95-4	Magnesium	3400		E*	P
7439-96-5	Manganese	2350	T		P
7439-97-6	Mercury	1.8		*	CV
7440-02-0	Nickel	17.1			P
7440-09-7	Potassium	2750		E	P
7782-49-2	Selenium	2.4		И	P
7440-22-4	Silver	4.0		1	P
7440-23-5	Sodium	168	В		P
7440-28-0	Thallium	4.9			P
7440-62-2	Vanadium	36.1			P
7440-66-6	Zinc	181		NE	P
57-12-5	Cyanide	0.55	ט		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPSUS17(2.0)

Lab	Name:	STL BURLINGTO	ОИ		Contract:	23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	:	SDG No.:	GCS002

Matrix (soil/water): SOIL Lab Sample ID: 535456

Level (low/med): LOW Date Received: 07/22/03

% Solids: 95.0

CAS No.	Analyte	Concentration	С	0	м
CAS NO.	12.02.7 00	00000000		_	
7429-90-5	Aluminum	1940	İ		P
7440-36-0	Antimony	5.7		И	P
7440-38-2	Arsenic	286	Ī	1	P
7440-39-3	Barium	74.0		*	P
7440-41-7	Beryllium	0.49		E	P
7440-43-9	Cadmium	0.57			P
7440-70-2	Calcium	7580	Π	E*	P
7440-47-3	Chromium	14.3			P
7440-48-4	Cobalt	12.0]	P
7440-50-8	Copper	90.5			P
7439-89-6	Iron	30100			P
7439-92-1	Lead	18.9		E*	P
7439-95-4	Magnesium	3380		E*	P
7439-96-5	Manganese	631			P
7439-97-6	Mercury	3.2	T	*	cv
7440-02-0	Nickel	32.9			P
7440-09-7	Potassium	1340		E	P
7782-49-2	Selenium	3.1		N	P
7440-22-4	Silver	1.8		1	P
7440-23-5	Sodium	20.4	שן		P
7440-28-0	Thallium	2.3			P
7440-62-2	Vanadium	27.6			P
7440-66-6	Zinc	138		NE	P
57-12-5	Cyanide	0.52	שׁ		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SHERTASUS25(1.5)

Lab Name:	STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Cas	e No.: 23046	SAS No.:	SDG No.: GCS002
Matrix (so:	il/water): SOIL		Lab Sample ID:	534806
Level (low,	/med): LOW	-	Date Received:	07/18/03

% Solids: 93.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	17500			P
7440-36-0	Antimony	0.94	B	N	P
7440-38-2	Arsenic	26.0			P
7440-39-3	Barium	269		*	P
7440-41-7	Beryllium	0.55		E	P
7440-43-9	Cadmium	0.027	U		P
7440-70-2	Calcium	1930		E*	P
7440-47-3	Chromium	8.6		1	P
7440-48-4	Cobalt	10.5		1	P
7440-50-8	Copper	10.2			P
7439-89-6	Iron	20600			P
7439-92-1	Lead	10.4		E*	P
7439-95-4	Magnesium	6310		E*	P
7439-96-5	Manganese	444	Π	Ì	P
7439-97-6	Mercury	0.048	T	*	CV
7440-02-0	Nickel	5.3			P
7440-09-7	Potassium	4900		E	P
7782-49-2	Selenium	0.24	В	N	P
7440-22-4	Silver	1.4			P
7440-23-5	Sodium	1330			P
7440-28-0	Thallium	0.26	ט		P
7440-62-2	Vanadium	58.5			P
7440-66-6	Zinc	66.9		NE	P
57-12-5	Cyanide	0.52	שן		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SHERWPSUS23(3.5)

Lab Name: STL BURLINGTON	Contract: 2	23046	
Lab Code: STLVT Cas	No.: 23046 SAS No.:	SDG	No.: GCS002
Matrix (soil/water): SOIL	Lab	Sample ID: 5347	99
Level (low/med): LOW	_ Date	Received: 07/1	.8/03

% Solids: 93.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	11900			P
7440-36-0	Antimony	6.0		N	P
7440-38-2	Arsenic	81.8		ļ	P
7440-39-3	Barium	188		*	P
7440-41-7	Beryllium	0.48		E	P
7440-43-9	Cadmium	0.63			P
7440-70-2	Calcium	2920		E*	P
7440-47-3	Chromium	6.7			P
7440-48-4	Cobalt	8.6			P
7440-50-8	Copper	30.5			P
7439-89-6	Iron	20100			P
7439-92-1	Lead	15.6		E*	P
7439-95-4	Magnesium	5200		E*	P
7439-96-5	Manganese	782]	P
7439-97-6	Mercury	0.36		*	CV
7440-02-0	Nickel	5.2			P
7440-09-7	Potassium	3320		E	P
7782-49-2	Selenium	0.48		N	P
7440-22-4	Silver	32.5	Ī		P
7440-23-5	Sodium	676			P
7440-28-0	Thallium	0.76	В		P
7440-62-2	Vanadium	50.8			P
7440-66-6	Zinc	87.8		NE	P
57-12-5	Cyanide	0.53	ט		AS

Color Before:	brown	Clarity Before:		Texture:	medium
Color After:	yellow	Clarity After:	clear	Artifacts:	
Comments:					
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2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found 5	&R(1)	М
Copper	500.0	515.80	103.2	200.0	195.90	98.0	202.10	101.0	P
Iron	25500.0	26240.00	102.9	30200.0	28580.00	94.6	29290.00	97.0	P
Lead	1000.0	987.60	98.8	400.0	372.60	93.2	392.60	98.2	P
Manganese	500.0	498.70	99.7	200.0	189.40	94.7	201.10	100.6	P
Mercury	3.0	3.06	102.0	5.0	5.05	101.0	4.68	93.6	CV
Nickel	500.0	501.60	100.3	200.0	189.30	94.6	196.90	98.4	P
Silver	500.0	501.50	100.3	100.0	98.50	98.5	101.70	101.7	P
Zinc	500.0	493.80	98.8	200.0	186.90	93.4	197.00	98.5	Р
Cyanide	120.0	123.61	103.0	150.0	148.70	99.1	149.67	99.8	AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Case	No.: 23046	SAS No.:	SDG No.: GCS002
Initial Ca	alibration Source:	Inorganic Ventu	ures/Fisher	
Continuing	g Calibration Sour	ce: SPEX/Fisher		

	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found 9	kR(1)	М
Copper			200.0	207.90	104.0	206.00	103.0	P
Iron			30200.0	28620.00	94.8	27970.00	92.6	P
Lead			400.0	396.00	99.0	384.90	96.2	P
Manganese	I		200.0	202.40	101.2	198.70	99.4	P
Mercury			5.0	4.92	98.4	4.82	96.4	cv
Nickel			200.0	197.90	99.0	194.40	97.2	Р
Silver	1		100.0	104.70	104.7	103.50	103.5	Р
Zinc	1		200.0	194.90	97.4	188.30	94.2	P
Cyanide			150.0	151.64	101.1			AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLIN	IGTON		Contract: <u>23046</u>		_
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002	_
Initial Ca	alibration	Source: Inorga	nic Vent	cures/Fisher		
Continuin	g Calibrati	on Source: SPE	X/Fisher			

	Initial	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М	
Copper				200.0	202.60	101.3			P	
Iron	1			30200.0	27600.00	91.4			P	
Lead	1			400.0	382.50	95.6			P	
Manganese				200.0	195.50	97.8			P	
Nickel	1			200.0	192.20	96.1			P	
Silver				100.0	103.00	103.0			P	
Zinc	1			200.0	187.10	93.6			P	

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Calibration		Continuing Calibration						
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum	26000.0	26250.00	101.0	30200.0	29990.00	99.3	31300.00	103.6	Р
Antimony	250.0	256.50	102.6	300.0	310.00	103.3	322.80	107.6	Р
Arsenic	250.0	258.30	103.3	100.0	101.40	101.4	109.50	109.5	P
Barium	500.0	513.70	102.7	200.0	204.20	102.1	212.50	106.2	P
Beryllium	500.0	521.60	104.3	100.0	101.70	101.7	105.80	105.8	P
Cadmium	500.0	511.50	102.3	100.0	100.40	100.4	104.60	104.6	P
Calcium	25000.0	25520.00	102.1	30200.0	29950.00	99.2	31230.00	103.4	Р
Chromium	500.0	518.40	103.7	200.0	201.60	100.8	210.60	105.3	P
Cobalt	500.0	510.30	102.1	200.0	203.60	101.8	212.00	106.0	P
Magnesium	25000.0	25090.00	100.4	30200.0	29760.00	98.5	30920.00	102.4	P
Manganese	J 500.0	512.50	102.5	200.0	202.90	101.4	221.50	110.8	P
Mercury	3.0	2.82	94.0	5.0	4.90	98.0	4.71	94.2	cv
Potassium	1 25000.0	27060.00	108.2	30200.0	31700.00	105.0	32850.00	108.8	Р
Selenium	250.0	253.00	101.2	100.0	102.80	102.8	107.60	107.6	P
Sodium	25000.0	24600.00	98.4	30200.0	29270.00	96.9	30520.00	101.1	P
Thallium	1 250.0	250.10	100.0	100.0	104.00	104.0	107.10	107.1	P
Vanadium	500.0	512.00	102.4	200.0	200.90	100.4	209.80	104.9	P
Cyanide	120.0	122.17	101.8	150.0	148.25	98.8	153.71	102.5	AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON				_Contract: 23046		_
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002	_
Initial C	alibration :	Source: Inorga	nic Vent	ures/Fisher		
Continuin	a Calibrati	on Source: SDE	Y/Fisher			

	Initial	Calibratio	on		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found 5	&R(1)	М
Aluminum			1	30200.0	30200.00	100.0	29990.00	99.3	P
Antimony				300.0	308.30	102.8	311.20	103.7	P
Arsenic				100.0	105.20	105.2	102.50	102.5	P
Barium				200.0	205.20	102.6	203.90	102.0	P
Beryllium				100.0	103.00	103.0	102.50	102.5	P
Cadmium	1			100.0	101.20	101.2	100.60	100.6	P
Calcium				30200.0	30250.00	100.2	30070.00	99.6	P
Chromium				200.0	203.40	101.7	202.30	101.2	P
Cobalt				200.0	205.10	102.6	203.70	101.8	P
Magnesium				30200.0	29890.00	99.0	29710.00	98.4	P
Manganese				200.0	210.50	105.2	207.80	103.9	P
Mercury				5.0	4.61	92.2	5.15	103.0	CV
Potassium	I			30200.0	31740.00	105.1	31560.00	104.5	P
Selenium	1			100.0	101.60	101.6	102.50	102.5	Р
Sodium				30200.0	29440.00	97.5	29340.00	97.2	P
Thallium				100.0	104.50	104.5	105.60	105.6	Р
Vanadium				200.0	201.20	100.6	200.00	100.0	Р
Cyanide				150.0	153.34	102.2		<u></u>	AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLING	TON		_Contract: 23046		_
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002	_
Initial C	alibration So	ource: Inorga	anic Vent	ures/Fisher		
Continuin	σ Calibratio	n Source: SPE	X/Fisher			

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	30090.00	99.6	30420.00	100.7	Р
Antimony	1			300.0	310.10	103.4	313.40	104.5	Р
Arsenic				100.0	102.20	102.2	104.20	104.2	P
Barium				200.0	205.70	102.8	207.10	103.6	P
Beryllium				100.0	102.10	102.1	103.40	103.4	P
Cadmium				100.0	100.30	100.3	101.90	101.9	P
Calcium				30200.0	29960.00	99.2	30520.00	101.1	P
Chromium	1			200.0	202.00	101.0	204.70	102.4	Ρ
Cobalt				200.0	203.90	102.0	206.00	103.0	P
Magnesium	1		l	30200.0	29660.00	98.2	30180.00	99.9	P
Manganese	ı		[200.0	208.30	104.2	210.30	105.2	P
Mercury	l			5.0	4.78	95.6	4.68	93.6	CV
Potassium				30200.0	31880.00	105.6	32050.00	106.1	P
Selenium	i i			100.0	104.00	104.0	104.90	104.9	Р
Sodium	1			30200.0	29360.00	97.2	29660.00	98.2	P
Thallium	ī	-		100.0	102.10	102.1	103.60	103.6	Р
Vanadium				200.0	201.80	100.9	204.20	102.1	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

 Lab Name:
 STL BURLINGTON
 Contract: 23046

 Lab Code:
 STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCS002

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Calibration		Continuing Calibration				
Analyte	True	Found %R(1)	True	Found %R(1)	Found %R(1)	М	
Manganese	500.0	510.80 102.2	200.0	203.00 101.5	201.00 100.5	P	
Mercury	3.0	2.76 92.0	5.0	5.06 101.2	4.90 98.0	cv	
Selenium	250.0	241.20 96.5	100.0	97.03 97.0	96.37 96.4	P	
Cyanide	120.0	122.31 101.9	150.0	147.29 98.2	149.35 99.6	AS	

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLIN	IGTON		Contract: 23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002	
Initial C	alibration	Source: Inorga	nic Vent	ures/Fisher		
Continuin	g Calibrati	on Source: SPE	X/Fisher			

Concentration Units: ug/L

	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М	
Manganese			200.0	202.90	101.4			P	
Mercury			5.0	5.00	100.0			cv	
Selenium			100.0	97.98	98.0			P	

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLINGTO	N		Contract: <u>23046</u>	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002
Initial Ca	alibration Sou	rce: Inorga	nic Vent	cures/Fisher	
Continuin	g Calibration	Source: SPE	X/Fisher		

	Initial (Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Cyanide	120.0	113.10 94.2	150.0	145.09	96.7	144.6	2 96.4	AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				CRDL Standard for ICP Initial Final				
Analyte	True	Found	%R	True	Found	%R	Found	%R
Copper				50.0	47.49	95.0	47.16	94.3
Iron				200.0	250.60	125.3	231.40	115.7
Lead		ì		6.0	3.39	56.5	3.46	57.7
Manganese				30.0	28.56	95.2	28.88	96.3
Mercury	0.2	0.17	85.0					
Nickel				80.0	77.53	96.9	77.01	96.3
Silver		ĺ		20.0	18.57	92.8	19.87	99.4
Zinc		Î		40.0	38.17	95.4	37.75	94.4

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL	BURLINGTON	Contract: 23046	

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				CRDL Standard for ICP					
				Initial			Final		
Analyte	True	Found	%R	True	Found	%R	Found	%R	
Aluminum	İ			400.0	616.80	154.2	773.60	193.4	
Antimony				120.0	126.30	105.2	128.10	106.8	
Arsenic	1			20.0	18.81	94.0	20.18	100.9	
Barium				400.0	409.70	102.4	406.90	101.7	
Beryllium				10.0	10.67	106.7	11.06	110.6	
Cadmium				10.0	10.62	106.2	10.89	108.9	
Calcium				10000.0	10620.00	106.2	10990.00	109.9	
Chromium				20.0	21.67	108.4	22.90	114.5	
Cobalt				100.0	99.81	99.8	102.10	102.1	
Magnesium				10000.0	10320.00	103.2	10580.00	105.8	
Manganese				30.0	30.76	102.5	31.74	105.8	
Mercury	0.2	0.22	110.0						
Potassium				10000.0	12070.00	120.7	11930.00	119.3	
Selenium				10.0	10.57	105.7	10.81	108.1	
Sodium				10000.0	9755.00	97.6	9930.00	99.3	
Thallium		1		20.0	22.26	111.3	24.82	124.1	
Vanadium		ĺ		100.0	101.70	101.7	103.10	103.1	

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL	BURLINGTON	Contract: <u>23046</u>

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				. Initi	or ICP Fina	al		
Analyte	True	Found	%R	True	Found	%R	Found	%R
Manganese				30.0	33.23	110.8	33.37	111.2
Mercury	0.2	0.26	130.0					
Selenium		ĺ		10.0	7.49	74.9	8.28	82.8

Control Limits: no limits have been established by EPA at this time

3 BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank			C	ontinuing Ca Blank (u				Preparation		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum									1.839	В	P
Antimony								l	0.934	В	P
Arsenic									0.240	U	P
Barium									0.730	U	P
Beryllium									-0.057	В	P
Cadmium									0.030	U	P
Calcium									22.320	U	P
Chromium									0.101	В	P
Cobalt					_				0.180	Ū	P
Copper	1.4	Ū	-1.5	В	-2.0	В	-2.0	В	0.140	Ū	P
Iron	16.8	Ŭ	-31.7	В	16.8	U	18.3	В	-3.435	В	P
Lead	1.5	Ŭ	1.5	U	1.5	Ŭ	1.5	Ū	0.150	U	P
Magnesium								1	18.170	U	P
Manganese	0.7	Ū	0.7	U	1.0	В	0.7	ี บ	0.070	Ū	P
Mercury	0.1	Ū	0.1	ַ	0.1	U	0.1	บ	0.017	U	CV
Nickel	2.0	Ū	2.0	ַ	2.0	ע	2.0	ប	-0.338	В	P
Potassium	1								25.000	U	P
Selenium				Î					0.170	Ū	P
Silver	0.9	U	-1.2	В	0.9	ט	0.9	ַ ט	-0.175	В	P
Sodium				ĺ					31.190	В	P
Thallium									-0.701	В	P
Vanadium									0.220	Ū	P
Zinc	5.7	U	5.7	υ	5.7	ט	5.7	U	0.570	Ū	P
Cyanide	10.0	Ū	10.0	ָ ט	10.0	ַ	10.0	Ū	0.500	U	AS

3 BLANKS

Lab	Name:	STL	BURLINGTON	Contract:	23046

Preparation Blank Matrix (soil/water): SOIL

Analyte	Initial Calib. Blank		_		ontinuing Ca Blank (u)			Preparation Blank		м
Analyce	(ug/L)	С	1	С	2	С		3	С		C	
Aluminum										1.830	U	P
Antimony										0.762	В	P
Arsenic										0.393	В	P
Barium										0.730	U	P
Beryllium										0.020	U	P
Cadmium										0.030	U	P
Calcium										22.320	U	P
Chromium										0.129	В	P
Cobalt										0.180	Ū	P
Copper			-2.8	В	-1.8	В				0.140	Ū	P
Iron			16.8		22.2	В				4.716	В	P
Lead			1.5		1.5	ט				0.204	В	P
Magnesium										18.170	Ū	P
Manganese			0.7	U	0.7	Ū				0.145	В	P
Mercury			0.1	U								CV
Nickel	İ		2.0		2.0	U				-0.383	В	P
Potassium		Ti								25.000	U	P
Selenium		1 1								0.300	В	P
Silver	i	i i	0.9	ָּט	0.9	ַ				0.090	U	P
Sodium	i	1 1				i i				27.910	В	P
Thallium		1 1								-0.899	В	P
Vanadium		1 1							1	0.220	U	P
Zinc	i	1 1	5.7	ָ <u>ט</u>	5.7	ש				1.093	В	P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank			Cont	tinuing Blank	Calibra (ug/L)	ation		Preparation	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	M
Cyanide	10.	. O U	10.	U o	10	ןט ן ס.	10.0	ט	0.463 U	AS

3 BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

_	Initial Calib. Blank			C	ontinuing Ca Blank (ug)		Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	M
Aluminum	18.3	Ū	19.3	В	18.3	ַע	18.3	บ			P
Antimony	3.8	U	3.8	ָט	3.8	ַ	3.8	Ū			P
Arsenic	2.4	ט	2.4	ן ט	2.4	U	2.4	U		· .	P
Barium	7.3	Ū	7.3	ט	7.3	Ū	7.3	U			P
Beryllium	0.6	В	0.2	ַ	0.5	В	0.5	В			P
Cadmium	0.3	U	0.3	ע	0.3	ט	0.3	ប			P
Calcium	223.2	U	223.2	ן ט	223.2	ט	223.2	บ			P
Chromium	0.6	U	0.6	[ט	0.6	ט	0.6	บ			P
Cobalt	1.8	υ	1.8	ŭ	1.8	Ū	1.8	บ			P
Magnesium	181.7	Ŭ	181.7	ַ	181.7	Ū		U			P
Manganese	0.7	Ŭ	0.7	Ū	2.0	В	1.1	В			P
Mercury	0.1	ט	0.1	ע	0.1	Ū	0.1	Ū	0.017	U	CV
Potassium	250.0	บ	250.0	ַ ט	250.0	ַ	250.0	บ			P
Selenium	1.7	Ŭ	1.7	Ŭ	1.7	บ	2.1	В			P
Sodium	218.8	Ŭ	218.8	Ŭ	218.8	ַ	218.8	บ			P
Thallium	5.7	В	2.8	ַ ט	2.8	Ŭ	2.9	В			P
Vanadium	2.2	U	2.2	ַ	2.2	U	2.2	ט			P

3 BLANKS

Lab	Name:	STL BURLINGTON	Contract:	23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Cc	ontinuing Ca Blank (uç)		Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum			18.3	ן ט ן	23.5	В	29.3	В			P
Antimony			3.8	ן ט	3.8	Ū	3.8	Ū			P
Arsenic			2.4	ן ט	2.4	Ū	2.4	Ū			P
Barium			7.3	ן ט	7.3	ַ	7.3	ַ			P
Beryllium			0.9	В	0.5	В	0.3	В			P
Cadmium			0.3	ן ט	0.3	ט	0.3	บ			P
Calcium			223.2	ן ט	223.2	ַט	223.2	U			P
Chromium			0.6	ן ט	0.6	ט	0.6	U			P
Cobalt			1.8	ן ט	1.8	Ŭ	1.8	บ			P
Magnesium			181.7	ן ט	181.7	ט	181.7	ע			P
Manganese			0.9	В	1.3	В	0.8	В			P
Mercury			0.1	В	0.1	Ū	0.1	U			CV
Potassium			250.0	ן ט	250.0	Ū	250.0	U			P
Selenium			1.7	ן ט	2.3	В	1.7	ש			P
Sodium			218.8	ן ט	218.8	ַ	218.8	ט			P
Thallium			2.9	В	2.8	ַ	2.8	Ū			P
Vanadium			2.2	ן ט	2.2	ט	2.2	Ū			P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	Preparation Blank						
Analyte	(ug/L)	С	1	С	2	С	3	С	Brank	С	М
Manganese	0.7	ַ ט	0.7	7 Ŭ	0.7	וטן	0.7	Ū	i i		P
Mercury	0.1	В	0.3	וטו	0.1	ט	0.1	U			CV
Selenium	3.4	U		וטו	-3.5	B	3.4	Ū			P
Cyanide	10.0	υ	10.0		10.0	וטו					AS

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank			Con	tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	C	M
Cyanide	10.	ָט 0	10.	0 0	10	ן ט			0.476 U	AS

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

ICS Source: Inorganic Ventures Concentration Units: ug/L

ICP ID Number: TJA ICAP 6

	Tru	e	Init	ial Found		Final Found				
Analyte	Sol.A	Sol.AB	Sol.A	Sol.A	3 %R	Sol.A	Sol.AB	%R		
Copper	이	473	1	510.2	107.9	0	519.0	109.7		
Iron	200000	172540	196300	190400.0	110.4	186200	180100.0	104.4		
Lead	0	44	5	46.3	105.2	5	50.2	114.1		
Manganese	0	428	0	457.1	106.8	0	461.5	107.8		
Nickel	0	877	11	930.0	106.0	10	928.9	105.9		
Silver	0	196	-1	208.1	106.2	0	213.9	109.1		
Zinc	0	841	5	912.6	108.5	3	898.1	106.8		

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCS002</u>

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

Concentration Units: ug/L

	True	•	Init	ial Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.A	B %R	Sol.A	Sol.AB	%R	
Aluminum	500000	452460	479600	477000.0	105.4	480800	477100.0	105.4	
Antimony	0	572	8	661.3	115.6	3	656.5	114.8	
Arsenic	0	94	1	110.0	117.0	3	106.1	112.9	
Barium	0	466	2	525.7	112.8	2	525.3	112.7	
Beryllium	. 0	446	-1	504.6	113.1	-1	503.5	112.9	
Cadmium	0	874	8	999.8	114.4	8	992.7	113.6	
Calcium	500000	421280	468900	472900.0	112.3	475200	472400.0	112.1	
Chromium	0	436	4	500.1	114.7	5	498.1	114.2	
Cobalt	0	435	8	493.7	113.5	8	493.2	113.4	
Magnesium	500000	498160	542200	548300.0	110.1	545600	545600.0	109.5	
Manganese	0	428	1	493.5	115.3	1	497.0	116.1	
Potassium	0	0	191	257.4		212	183.7		
Selenium	0	48	-2	49.6	103.3	-3	50.2	104.6	
Sodium	0	0	-52	-371.8		-173	-421.6		
Thallium	0	95	4	100.2	105.5	1	104.2	109.7	
Vanadium	0	417	-2	477.2	114.4	-2	477.4	114.5	

4

ICP INTERFERENCE CHECK SAMPLE

 Lab Name:
 STL BURLINGTON
 Contract: 23046

 Lab Code:
 STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCS002

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

	Tri	ne	Init	ial Found		Fin	al Found	
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Manganese	0	474	2	486.6	102.7	2	480.8	101.4
Selenium	0	47	3	48.3	102.8	0	52.4	111.5

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

MAGNWPSUS14(3.0)S

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	%R	Q	М
 Aluminum	LIMIC SK	9563.9648		7290.9072		186.98	1215.7		P
Antimony	75 - 125	20.9323		10.5733	l	46.74	22.2	N	P
Arsenic		1549.1190		1215.1510		3.74	8929.6		P
Barium	75 - 125	337.6837		130.5466		186.98	110.8		P
Beryllium	75 - 125	5.6468		1.1996		4.67	95.2		P
Cadmium	75 - 125	3.9191		0.0274	U	4.67	83.9		P
Chromium	75 - 125	30.4308		10.7648		18.70	105.2	L	P
Cobalt	75 - 125	64.4329		18.0174		46.74	99.3	L	P
Copper	75 - 125	85.1408		61.1590		23.37	102.6		P
Iron		63161.4414		75728.0000		93.49	-13441.	<u> </u>	P
Lead		23.0077		31.7107		1.87	-465.4		P
Manganese	1	2541.0420		2350.0220		46.74	408.7	l	P
Mercury		3.0225		1.7776		0.18	691.6		cv
Nickel	75 - 125	56.3180		17.0687		46.74	84.0		P
Selenium	75 - 125	2.9786		2.4048		0.93	61.7	N	P
Silver	75 - 125	8.0345		4.0012		4.67	86.4		P
Thallium	75 - 125	9.2732		4.8871		4.67	93.9		P
Vanadium	75 - 125	85.9448		36.0805		46.74	106.7		P
Zinc	75 - 125	191.9337		181.2692		46.74	22.8	N	P
Cyanide	75 - 125	4.2192		0.5491	ט	5.14	82.1		AS

Comments:		

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

MA	GNWE	SUS	14	(3.	0) A	

Lab Name: STL BUR	LINGTON	Contr	act: <u>23046</u>		
Lab Code: STLVT	Case No.: 23046	SAS	<u></u>	SDG No.:	GCS002
Matrix (soil/water): soil		Level (low,	/med): LOW	

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added(SA)	%R	Q	м
Aluminum		81820.00		79920.00		2000.0	95.0		₽
Antimony		640.50		115.90		500.0	104.9		P
Arsenic		13650.00		13320.00		40.0	825.0		P
Barium		3508.00		1431.00		2000.0	103.8		P
Beryllium		65.81		13.15		50.0	105.3		₽
Cadmium		43.30		0.30	ט	50.0	86.6		Р
Chromium		328.40		118.00		200.0	105.2		P
Cobalt		702.10		197.50		500.0	100.9		P
Copper		963.60		670.40		250.0	117.3		P
Iron		794500.00		830100.00		1000.0	-3560.		P
Lead		360.70		347.60		20.0	65.5		P
Manganese		31350.00		25760.00		500.0	1118.0		P
Nickel		708.90		187.10		500.0	104.4		P
Selenium		36.52		26.36		10.0	101.6		P
Silver		102.00		43.86		50.0	116.3		P
Thallium		102.00		53.57		50.0	96.9		P
Vanadium		925.10		395.50		500.0	105.9		P
Zinc		2410.00		1987.00		500.0	84.6		P
Cyanide		20.98		10.00	Ŭ	20.0	104.9		AS

Comments:				
	 			

6

DUPLICATES

SAMPLE NO.

MAGNWPSUS14(3.0)D

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Duplicate: 89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	м
Aluminum		7290.9072		7918.5508		8.3		P
Antimony	5.5	10.5733		9.5965		9.7		P
Arsenic		1215.1510		1072.7750		12.4		P
Barium		130.5466		273.2843		70.7	*	P
Beryllium	0.5	1.1996		1.0690		11.5		P
Cadmium		0.0274	ט	0.0283	U			P
Calcium		11886.9502		14903.8496		22.5	*	P
Chromium		10.7648		12.9431		18.4		P
Cobalt	4.6	18.0174		18.8726		4.6		P
Copper		61.1590		59.6248		2.5		P
Iron		75728.0000		75933.2500		0.3		P
Lead		31.7107		25.6599		21.1	*	P
Magnesium		3400.0510		4880.2788		35.8	*	P
Manganese		2350.0220		2535.8220		7.6		P
Mercury		1.7776		3.1848		56.7	*	CV
Nickel	3.6	17.0687		16.7515		1.9		P
Potassium		2745.0371		2911.0100		5.9		P
Selenium	0.5	2.4048		1.9862		19.1		P
Silver	0.9	4.0012		3.8490		3.9		P
Sodium		168.1324	В	172.3228	В	2.5		₽
Thallium		4.8871		5.4223		10.4		P
Vanadium		36.0805		39.9321		10.1		P
Zinc		181.2692		151.9608		17.6		P
Cyanide		0.5491	Ū	0.5096	U			AS

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON			Contract: 23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002

Solid LCS Source: Environmental Express

	Aqueous	(ug/L)			Solid	(mg/kg)		
Analyte	True	Found	%R	True	Found C	Limi	ts	%R
Aluminum				200.0	211.1	160.0	240.0	105.6
Antimony				50.0	52.8	40.0	60.0	105.
Arsenic				24.0	24.3	19.2	28.8	101.
Barium				200.0	205.8	160.0	240.0	102.
Beryllium				5.0	5.2	4.0	6.0	104.
Cadmium				25.0	25.9	20.0	30.0	103.
Calcium				2000.0	2057.0	1600.0	2400.0	102.8
Chromium				20.0	21.3	16.0	24.0	106.
Cobalt				50.0	50.9	40.0	60.0	101.
Copper				25.0	25.6	20.0	30.0	102.
Iron	İ			100.0	99.8	80.0	120.0	99.
Lead				22.0	21.0	17.6	26.4	95.
Magnesium	Ì			2000.0	1951.0	1600.0	2400.0	97.
Manganese				50.0	49.1	40.0	60.0	98.
Mercury				0.1	0.1	0.1	0.1	100.
Nickel				50.0	48.2	40.0	60.0	96.
Potassium				2000.0	2138.0	1600.0	2400.0	106.
Selenium				21.0	20.4	16.8	25.2	97.
Silver				25.0	24.7	20.0	30.0	98.
Sodium				2000.0	1979.0	1600.0	2400.0	99.
Thallium				25.0	24.5	20.0	30.0	98.
Vanadium	ĺ			50.0	52.6	40.0	60.0	105.
Zinc				50.0	48.8	40.0	60.0	97.
Cyanide			İ	6.0	6.0	5.4	6.6	100.

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON	Contract:	23046

Solid LCS Source: Environmental Express

	Aqueous	(ug/L)			Solid	(mg/kg)		
Analyte	True	Found	%R	True	Found C	Limi	ts	%R
Aluminum				200.0	216.3	160.0	240.0	108.2
Antimony				50.0	53.2	40.0	60.0	106.4
Arsenic				24.0	24.8	19.2	28.8	103.3
Barium				200.0	209.0	160.0	240.0	104.5
Beryllium				5.0	5.3	4.0	6.0	106.0
Cadmium				25.0	26.0	20.0	30.0	104.0
Calcium				2000.0	2079.0	1600.0	2400.0	104.0
Chromium				20.0	21.4	16.0	24.0	107.0
Cobalt				50.0	51.2	40.0	60.0	102.4
Copper			1	25.0	26.9	20.0	30.0	107.6
Iron				100.0	97.5	80.0	120.0	97.5
Lead				22.0	21.7	17.6	26.4	98.6
Magnesium				2000.0	1970.0	1600.0	2400.0	98.5
Manganese				50.0	50.8	40.0	60.0	101.6
Nickel				50.0	48.8	40.0	60.0	97.6
Potassium				2000.0	2158.0	1600.0	2400.0	107.9
Selenium			-	21.0	20.7	16.8	25.2	98.6
Silver				25.0	25.7	20.0	30.0	102.8
Sodium			ĺ	2000.0	1993.0	1600.0	2400.0	99.6
Thallium			ĺ	25.0	24.2	20.0	30.0	96.8
Vanadium				50.0	53.2	40.0	60.0	106.4
Zinc				50.0	48.6	40.0	60.0	97.2

LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLING	TON		Contract:	23046			
Lab Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCS002	

Solid LCS Source: Environmental Express

	Aqueous	(ug/L)		Solid (mg/kg)					
Analyte	True	Found	%R	True	Found C	Limits	%R		
Mercury	Ī		1	0.1	0.1	0.1	0.1 100.0		
Cyanide				6.0	6.1	5.4	6.6 101.7		

LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	N		Contract:	23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCS002	

Solid LCS Source: Environmental Express

	Aqueous	(ug/L)		Solid (mg/kg)					
Analyte	True	Found	%R	True	Found C	Limits	%R		
Cyanide	1			6.0	5.7	5.4	6.6 95.0		

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	М		Contract:	23046			
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCS002	

Solid LCS Source: Environmental Express

Aqueous LCS Source: _____

	Aqueous	(ug/L)		Solid (mg/kg)				
Analyte	True	Found	%R	True	Found C	Limits	%R	
Cyanide	1			6.0	5.8	5.4	6.6 96.7	

9 ICP SERIAL DILUTIONS

SAMPLE NO.

MAGNWPSUS14(3.0)L

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

~	Concentra	atio	n Units: ug/L		_		
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Differ- ence	Ω	м
Aluminum	79920.00	Πİ	87830.00	ı	9.9	1	P
Antimony	115.90	i	134.10	B	15.7	<u> </u>	P
Arsenic	13320.00	i	14270.00	i	7.1	<u></u> 	P
Barium	1431.00	İΪ	1504.00	.	5.1		P
Beryllium	13.15	İ	15.46	В	17.6	E	P
Cadmium	0.30	ט	1.50	<u>י</u>		<u> </u>	P
Calcium	130300.00	İ	146400.00	i d	12.4	E	P
Chromium	118.00	İ	129.40	i d	9.7	<u> </u>	P
Cobalt	197.50	İ	216.80	В	9.8	! 	P
Copper	670.40	İ	697.40		4.0	! 	P
Iron	830100.00		898400.00		8.2	! 	P
Lead	347.60		396.20		14.0	E	P
Magnesium	37270.00		41930.00		125	E	P
Manganese	25760.00	İ	27710.00		7.6		P
Nickel	187.10	İ	204.90		9.5		P
Potassium	30090.00	İ	36090.00		19.9	E	P
Selenium	26.36	j	30.21		14.6		P
Silver	43.86	<u> </u>	42.99	В	2.0		P
Sodium	1843.00	В	1410.00	В	23.5		P
Thallium	53.57	T i	74.70	\dashv	39.4		P
Vanadium	395.50	İ	422.00	十	6.7		P
Zinc	1987.00	ji	2248.00	十	13.1	E	P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	ab Name: STL BURLINGTON			Contract: 23046					
Lab Code: STLVT C	ase No.: 23	046	SAS No.	:	SDG	No.	:_GCS002		
ICP ID Number:			Date:	07/01/03					
Flame AA ID Number: <u>La</u> Furnace AA ID Number: _	chat Cyanic	de							
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м			
	Cyanide			10	10.0	AS			
	<u> </u>		1						

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: <u>STL BURLINGT</u>	М		Contrac	t: <u>23046</u>			
Lab Code: STLVT C	ase No.: 230	046	SAS No.	:	SDG	No.	: GCS002
ICP ID Number:		· · · · · · · · · · · · · · · · · · ·	Date:	07/01/03			
Flame AA ID Number: <u>Le</u> Furnace AA ID Number: _	eeman Hydra	AA					
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М	
	Mercury	253.70		0.2	0.10	CV	

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	DG No.: GCS002
ICP ID Number: TJA ICAP 4	Date: 07/01/03	
Flame AA ID Number:		
Furnace AA ID Number:		
Wave-	Pagk-	

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м
Manganese	257.610		15	0.7	P
Selenium	196.026		5	3.4	P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046						
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCS002						
ICP ID Number: TJA ICAP 6	Date: 07/01/03						
Flame AA ID Number:							
Furnace AA ID Number:							

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м
Aluminum	308.215		200	18.3	P
Antimony	206.838		60	3.8	P
Arsenic	189.042		10	2.4	P
Barium	493.409		200	7.3	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.3	P
Calcium	317.933		5000	223.2	P
Chromium	267.716		10	0.6	P
Cobalt	228.616		50	1.8	P
Magnesium	279.079		5000	181.7	P
Manganese	257.610		15	0.7	P
Potassium	766.491		5000	250.0	P
Selenium	196.026		5	1.7	P
Sodium	330.232		5000	218.8	P
Thallium	190.864		10	2.8	P
Vanadium	292.402		50	2.2	P

Comments:	

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046						
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCS002						
ICP ID Number: <u>TJA ICAP 6</u>	Date: 07/01/03						
Flame AA ID Number:							
Thomas AA ID Numbons							

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м
Copper	324.754		25	1.4	P
Iron	271.441		100	16.8	P
Lead	220.353		3	1.5	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.0	P
Silver	328.068		10	0.9	P
Zinc	206.200		20	5.7	P

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

ICP ID Number: TJA ICAP 4 Date: 06/30/03

Ama lasta	Wave- length	3	Interelement	Correction	Factors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Ba
Aluminum	308.22	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Antimony	206.84	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Arsenic	189.04	0.0000000	0.000000	-0.0000600	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Boron	249.68	0.0000000	0.0000000	0.0008950	0.0000000	0.000000
Cadmium	226.50	0.0000000	0.000000	0.0000330	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0006300	0.000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	-0.0000220	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000200	0.0000000	-0.0000900	0.0000000	0.0000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000490	0.0000000	0.0000000
Zinc	213.86	0.0000250	0.0000000	0.0000630	0.0000000	0.0000000

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

	Wave-	Interelement Correction Factors for:						
Analyte	length							
12122700	(nm)	Со	Cr	Cu	Mn	Мо		
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400		
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800		
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380		
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000		
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Chromium	267.72	0.0001150	0.0000000	0.0000000	0.0000000	0.0001350		
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380		
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Iron	271.44	0.1059800	0.0000000	0.0000000	0.0000000	0.0036200		
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540		
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Nickel	231.60	-0.0004300	0.0000000	0.0000000	0.0000000	0.0000000		
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750		
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007920		
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000		
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	-0.0160000		
Zinc	213.86	0.0000000	0.0000000	0.0003300	0.0000000	0.0000000		

Comments:			 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

	Wave- length		Interelement	Correction 1	Factors for:	
Analyte	(nm)	Ni	Sb	Sn	v	Zn
Aluminum	308.22	0.0000000	0.0000000	0.1440400	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0006280	0.0000000
Boron	249.68	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Copper	324.75	0.0000000	0.000000	0.0000000	-0.000192	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0237000	0.000000
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	-0.1212200	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.1177000
Thallium	190.86	0.0000000	0.000000	0.0000000	0.0025400	0.0000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0052400	0.000000	0.0000000	0.0000000	0.0000000

Comments:	 	 		

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

	Wave-	Interelement Correction Factors for:					
Analyte	length (nm)	Al	Ca	Fe	Mg	Ag	
Aluminum	308.215	0.0000000	0.0000000	-0.0002180	0.0000000	0.0000000	
Antimony	206.838	0.0000080	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.042	0.0000170	0.0000000	-0.0000590	0.0000000	0.0000000	
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.678	0.0000000	0.0000000	-0.0000740	0.0000000	0.0000000	
Cadmium	226.502	0.0000010	0.0000000	0.0000590	0.0000000	0.0000000	
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Chromium	267.716	0.0000100	0.000000	-0.0000200	0.0000060	0.0000000	
Cobalt	228.616	0.0000000	0.000000	-0.0000400	0.0000000	0.0000000	
Copper	324.754	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Iron	271.441	0.0001740	0.000000	0.0000000	-0.001587	0.0000000	
Lead	220.353	-0.0000300	0.0000000	0.0000550	-0.000006	0.0000000	
Magnesium	279.079	0.0000000	0.0000000	0.000000	0.0000000	0.0000000	
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000200	0.0000000	
Molybdenum	202.030	0.0000000	0.000000	0.000000	0.0000000	0.0000000	
Nickel	231.604	0.0000000	0.0000000	-0.0000520	0.0000000	0.0000000	
Phosphorus	178.287	0.0000070	0.0000000	0.0000000	0.0000000	0.0000000	
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Selenium	196.026	0.0000000	0.000000	-0.0007500	0.0000000	0.0000000	
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Strontium	421.552	0.0000000	0.0000240	0.0000000	0.0000000	0.0000000	
Thallium	190.864	0.0000080	0.000000	-0.0001100	0.0000000	0.0000000	
Tin	189.989	0.0000090	0.0000000	-0.0000750	0.0000000	0.0000000	
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000140	0.0000000	
Vanadium	292.402	0.0000000	0.000000	0.0000030	0.0000040	0.0000000	
Zinc	206.200	0.0000300	0.000000	-0.0000600	0.0000000	0.0000000	

Comments:		 	 	 		

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL	BURLINGTON	с	Contract:	23046		_

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

	Wave- length	I	Interelement	Correction	Factors for:	
Analyte	(nm)	As	В	Be	Cd	Со
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.000000	0.0000000	-0.0082960
Lead	220.353	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	-0.0001900
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	0.000000	0.0000000	0.0002350
Tin	189.989	0.0000000	0.0000000	-0.0004370	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Zinc	206.200	0.0000000	0.000000	0.000000	0.0000000	0.0000000

Comments:		 	 	 	 -
		 		 	-

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

	Wave-	I	nterelement	Correction	Factors for:	
Analyte	length (nm)	Cr	Cu	Mn	Na	Ni
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0078510	0.0000000	0.0000000	0.00000000	0.0000000
	189.042	-0.0002840	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic			0.0000000	0.0000000	0.00000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.00000000	0.0000000
Beryllium	313.042	0.0000000			0.00000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000		
Cadmium	226.502	0.0000000	0.000000	0.0000000	0.0000000	-0.0001750
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0008900	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000800
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	-0.0007400	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	-0.0004500	0.0000000	0.0000000
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0044570	0.0000000	0.0000000	0.0000000	0.0000000

Comments:	 	 		

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

	Wave-	11				
31	length	:	Interelement	Correction	Factors for:	
Analyte	(nm)	Pb	Sb	Se	Si	Tl
Aluminum	308.215	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Antimony	206.838	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Beryllium	313.042	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Cadmium	226.502	0.0000000	0.000000	0.000000	0.0000000	0.000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	-0.0003500	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0003900	0.0000000	0.0000000	0.0000000	0.0000000

Comments:	 			 		 		
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON	- Aller Artist	Contract: 23046	
Lab	Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCS002
ICP	ID Number: TJA ICAP 6		Date: <u>10/01/02</u>	

	Wave-		Interelement	Correction	Factors	for:
Analyte	length	l v	Zn			
Aluminum	(nm)	<u> </u>	0.00000001		<u> </u>	<u> </u>
	308.215	0.0173200			<u> </u>	<u> </u>
Antimony	206.838	-0.0012700	0.0000000		<u> </u>	1
Arsenic	189.042	-0.0002800	0.0000000		<u> </u>	
Barium	493.409	0.0000000	0.000000			
Beryllium	313.042	0.0004800	0.0000000			1
Boron	249.678	0.0000000	0.0000000			
Cadmium	226.502	0.0000000	0.0000000		<u> </u>	
Calcium	317.933	0.0000000	0.0000000			
Chromium	267.716	-0.0003600	0.0000000			
Cobalt	228.616	0.0000000	0.0000000			
Copper	324.754	0.0000000	0.0000000			
Iron	271.441	0.0081200	0.0000000			
Lead	220.353	-0.0000850	0.0000000			l
Magnesium	279.079	0.0000000	0.0000000			
Manganese	257.610	0.0000000	0.0000000			
Molybdenum	202.030	0.0000000	0.0000000			
Nickel	231.604	0.0000000	0.0000000			
Phosphorus	178.287	0.0000000	0.0164830			
Potassium	766.491	0.0000000	0.0000000			
Selenium	196.026	0.0000000	0.0000000			
Silver	328.068	-0.0003350	0.0000000			
Sodium	330.232	-0.1479730	0.6581000			
Strontium	421.552	0.0000000	0.0000000			
Thallium	190.864	0.0014900	0.0000000			
Tin	189.989	0.0000000	0.0000000			
Titanium	334.941	0.0000000	0.0000000			
Vanadium	292.402	0.0000000	0.0000000			
Zinc	206.200	-0.0004730	0.0000000			

Comments:			 .,	

12 ICP LINEAR RANGES (QUARTERLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

ICP ID Number: TJA ICAP 4 Date: 07/01/03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Manganese	10.00	10000.0	P
Selenium	10.00	5000.0	P

12 ICP LINEAR RANGES (QUARTERLY)

Lab Name:	STL BURLINGTON	Contract: 23046	

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Magnesium	10.00	600000.0	P
Manganese	10.00	10000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

Lab Name	: STL BURLINGTON	Contract:	23046
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Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

ICP ID Number: TJA ICAP 6 Date: 07/01/03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Copper	10.00	100000.0	P
Iron	10.00	1000000.0	P
Lead	10.00	50000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	50000.0	P
Silver	10.00	2000.0	P
Zinc	10.00	10000.0	P

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: AS

EPA Sample No.	Date S22(1.5) 07/24/03 S20(4.0) 07/24/03 S21(2.5) 07/24/03 S39(2.0) 07/24/03 S34(0.5) 07/24/03 S35(0.5) 07/24/03 S36(0.5) 07/24/03	Initial Weight (a)	Volume (mL)
CAPMTASUS22 (1.5)	07/24/03	1.04	50.0
CAPMWPSUS20(4.0)	07/24/03	1.02	50.0
CAPMWPSUS21(2.5)	07/24/03	1.00	50.0
CAPMWPSUS39(2.0)	07/24/03	1.01	50.0
GRANBGSSS34 (0.5)	07/24/03	1.02	50.0
GRANBGSSS35(0.5)	07/24/03	1.00	50.0
GRANBGSSS36(0.5)	07/24/03	1.00	50.0
ICV	07/24/03	50.0	50.0
LCSS0724B	07/24/03	1.00	50.0
PBS0724B	07/24/03	1.00	50.0
SHERTASUS25(1.5)	07/24/03	1.03	50.0
SHERWPSUS23(3.5)	07/24/03	1.01	50.0

13 PREPARATION LOG

Lab Name:	STL BURLINGTON	Contract:	23046
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Method: AS

EPA Sample No.	le No. Date 08(1.2) 07/29/03 09(1.0) 07/29/03 10(2.0) 07/29/03 07/29/03 07/29/03 19(0.5) 07/29/03		Volume (mL)
AJAXWPSUS08(1.2)	07/29/03	1.33	50.0
AJAXWPSUS09(1.0)	07/29/03	1.06	50.0
AJAXWPSUS10(2.0)	07/29/03	1.04	50.0
ICV	07/29/03	50.0	50.0
LCSS0729C	07/29/03	1.00	50.0
LUCABGSSS19(0.5)	07/29/03	1.01	50.0
MAGNTASSS15(0.5)	07/29/03	1.00	50.0
MAGNTASSS15(0.5)(100	07/29/03	1.13	50.0
MAGNTASUS18(1.5)	07/29/03	1.11	50.0
MAGNWPSSS16(0.5)	07/29/03	1.03	50.0
MAGNWPSUS14(3.0)	07/29/03	1.03	50.0
MAGNWPSUS14(3.0)D	07/29/03	1.11	50.0
MAGNWPSUS14(3.0)S	07/29/03	1.10	50.0
MAGNWPSUS17(2.0)	07/29/03	1.01	50.0
PBS0729C	07/29/03	1.08	50.0

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: AS

EPA Sample No.	Preparation Date	Initial Volume	Volume (mL)
ICV	07/31/03	50.0	50.0
LCSDS0731B	07/31/03	1.00	50.0
LCSS0731B	07/31/03	1.00	50.0
MAGNPDSSS12(0.3)	07/31/03	1.07	50.0
PBS0731B	07/31/03	1.05	50.0

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: CV

EPA Sample No.	Preparation Date	Initial Weight (g)	Volume (mL)
CAPMTASUS22 (1.5)	07/31/03	0.66	100.0
CAPMWPSUS20 (4.0)	07/31/03	0.64	100.0
CAPMWPSUS21 (2.5)	07/31/03	0.66	100.0
CAPMWPSUS39(2.0)	07/31/03	0.63	100.0
GRANBGSSS34(0.5)	07/31/03	0.63	100.0
GRANBGSSS35 (0.5)	07/31/03	0.67	100.0
GRANBGSSS36(0.5)	07/31/03	0.60	100.0
LCSS0731A	07/31/03	1.00	100.0
PBS0731A	07/31/03	0.60	100.0
SHERTASUS25 (1.5)	07/31/03	0.66	100.0
SHERWPSUS23(3.5)	07/31/03	0.67	100.0

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: CV

EPA Sample No.	ample No. Date SSUS08(1.2) 08/08/03 SSUS09(1.0) 08/08/03 SSUS10(2.0) 08/08/03 SSSS19(0.5) 08/08/03 SSSS12(0.3) 08/08/03		Volume (mL)
AJAXWPSUS08(1.2)	08/08/03	0.65	100.0
AJAXWPSUS09(1.0)	08/08/03	0.62	100.0
AJAXWPSUS10(2.0)	08/08/03	0.68	100.0
LCSS0808C	08/08/03	1.00	100.0
LUCABGSSS19(0.5)	08/08/03	0.64	100.0
MAGNPDSSS12(0.3)	08/08/03	0.63	100.0
MAGNTASSS15(0.5)	08/08/03	0.64	100.0
MAGNTASSS15(0.5)(100	08/08/03	0.61	100.0
MAGNTASUS18(1.5)	08/08/03	0.65	100.0
MAGNWPSSS16(0.5)	08/08/03	0.66	100.0
MAGNWPSUS14(3.0)	08/08/03	0.63	100.0
MAGNWPSUS14(3.0)D	08/08/03	0.65	100.0
MAGNWPSUS14(3.0)S	08/08/03	0.64	100.0
MAGNWPSUS17(2.0)	08/08/03	0.65	100.0
PBS0808C	08/08/03	0.60	100.0

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PREPARATION LOG

Lab Name:	STL BURLINGTON	Contract:	23046	
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Method: P

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)
CAPMTASUS22 (1.5)	08/07/03	1.14	100.0
CAPMWPSUS20(4.0)	08/07/03	1.21	100.0
CAPMWPSUS21(2.5)	08/07/03	1.20	100.0
CAPMWPSUS39(2.0)	08/07/03	1.32	100.0
GRANBGSSS34(0.5)	08/07/03	1.27	100.0
GRANBGSSS35(0.5)	08/07/03	1.30	100.0
GRANBGSSS36(0.5)	08/07/03	1.27	100.0
LCSS0807I	08/07/03	1.00	100.0
PBS0807I	08/07/03	1.00	100.0
SHERTASUS25 (1.5)	08/07/03	1.18	100.0
SHERWPSUS23(3.5)	08/07/03	1.35	100.0

13 PREPARATION LOG

Lab	Name:	STL BURLINGTON	Contract:	23046

Method: P

EPA Sample No.	ample No. Date		Volume (mL)
AJAXWPSUS08(1.2)	08/17/03	1.13	100.0
AJAXWPSUS09(1.0)	08/17/03	1.28	100.0
AJAXWPSUS10(2.0)	08/17/03	1.28	100.0
LCSS0817A	08/17/03	1.00	100.0
LUCABGSSS19(0.5)	08/17/03	1.25	100.0
MAGNPDSSS12(0.3)	08/17/03	1.29	100.0
MAGNTASSS15(0.5)	08/17/03	1.18	100.0
MAGNTASSS15 (0.5) (100	08/17/03	1.36	100.0
MAGNTASUS18 (1.5)	08/17/03	1.32	100.0
MAGNWPSSS16(0.5)	08/17/03	1.17	100.0
MAGNWPSUS14(3.0)	08/17/03	1.24	100.0
MAGNWPSUS14(3.0)D	08/17/03	1.20	100.0
MAGNWPSUS14(3.0)S	08/17/03	1.21	100.0
MAGNWPSUS17(2.0)	08/17/03	1.13	100.0
PBS0817A	08/17/03	1.00	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 07/25/03 End Date: 07/25/03

EPA				Analytes R A S A B B C C C C F P M M H N K S A N T V Z													\neg										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	A	N	Т	V	Z	c
No.				L	В	s	A	E	D	A	R	0	บ	E	В	G	N	G	I		E	G	A	L		N	N
S0	1.00	1050																									Х
S10	1.00	1051																							Ш		_x
s30	1.00	1052																									x
S50	1.00	1053																							\bigsqcup		_x
S100	1.00	1054																							Ш		_x
S200	1.00	1054																							Ш		_x
s300	1.00	1055																				L					_x
ICV	1.00	1057																									_x
ICB	1.00	1058																									x
LRS	1.00	1059											L								<u>L</u>						x
LRS	1.00	1100																								ot	_x
ccv	1.00	1101																									_x
CCB	1.00	1102																									_x
ZZZZZZ	1.00	1103	-																								
LCSS0724B	1.00	1104		İ																							x
PBS0724B	1.00	1105																									x
SHERWPSUS23(3.5)	1.00	1106							Γ																		x
CAPMWPSUS20(4.0)	1.00	1107																									x
CAPMWPSUS21(2.5)	1.00	1108																									X
CAPMTASUS22 (1.5)	1.00	1109	11.111																							\Box	x
SHERTASUS25 (1.5)	1.00	1110																									_x
CAPMWPSUS39(2.0)	1.00	1111																									x
GRANBGSSS34(0.5)	1.00	1112																								\Box	x
ccv	1.00	1113																									<u>x</u>
CCB	1.00	1114																									x
GRANBGSSS35 (0.5)	1.00	1115																							$oxed{igsquare}$		_x
GRANBGSSS36(0.5)	1.00	1116																									_x
ZZZZZZ	1.00	1117																							\square	Ш	
ZZZZZZ	1.00	1118																							$oxed{oxed}$	Ш	
ZZZZZZ	1.00	1119																							Ш		_
ZZZZZZ	1.00	1120																							\square		
ZZZZZZ	1.00	1121																									
ZZZZZZ	1.00	1122																							$oxed{\Box}$		[
ZZZZZZ	1.00	1123																									
ZZZZZZ	1.00	1123																							$oxed{\Box}$		
ccv	1.00	1124																							Ш		<u>x</u>
CCB	1.00	1125																									x

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 07/29/03 End Date: 07/29/03

EPA	ı		<u> </u>										z	 137												
Sample	D/F	Time	% R	<u></u>	l e	A	ъ	Б	<u>ا</u>		<u> </u>	С		 		_	н	NT	v	c	Α	N	m	77	z	С
No.	-,-			L		S		B E	D	C A		0			G		G	I	K	E	G	A	L	V		
S0	1.00	2152													Н										П	Х
S10	1.00	2153								İ						Ī									П	x
s30	1.00	2154																							П	x
S50	1.00	2155								П												ΙĪ			П	x
S100	1.00	2156								Π															П	x
S200	1.00	2157																				П				x
s300	1.00	2157		Ì				Ì								П										х
ICV	1.00	2159																							Ī	X
ICB	1.00	2200														П						Πİ			П	x
LRS	1.00	2201																				İ			П	x
LRS	1.00	2202							Γ	П															\Box	x
CCV	1.00	2203																							П	x
ССВ	1.00	2204								Π															П	х
PBS0729C	1.00	2205								ΪÏ																x
LCSS0729C	1.00	2206														П									П	x
ZZZZZZ	1.00	2207																				Ιİ				i
ZZZZZZ	1.00	2208								i															П	i
ZZZZZZ	1.00	2209								i																i
ZZZZZZ	1.00	2210								İΠ																i
ZZZZZZ	1.00	2211																							ΠÌ	i
ZZZZZZ	1.00	2212																								
ZZZZZZ	1.00	2213																							ΠÌ	i
ZZZZZZ	1.00	2214																							Πİ	_ i
CCV	1.00	2215																								x
ССВ	1.00	2216																							一	x
AJAXWPSUS08(1.2)	1.00	2217											П												T	x
AJAXWPSUS09(1.0)	1.00	2218		П						i												i				х
MAGNTASSS15(0.5)	1.00	2219												T								i			T	x
MAGNTASSS15(0.5)(100	1.00	2220												T					T						ヿ゙	х
LUCABGSSS19(0.5)	1.00	2221		Ħ										T			T	T							ヿ	x
MAGNTASUS18 (1.5)	1.00	2222															T							i		x
MAGNWPSSS16(0.5)	<u>!</u>	2223		П		<u> </u>												ᅦ	一							x
AJAXWPSUS10(2.0)		2224		П								П											\neg			x
MAGNWPSUS14(3.0)		2225		П					П										ᅱ	П					\Box	x
MAGNWPSUS14(3.0)D		2226		П					П	Н									_	П				一	T	x
CCV		2226		П					П								\dashv								_	х
ССВ	1.00	2227		Ш					П											П			\neg		\rightarrow	x

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 07/29/03 End Date: 07/29/03

EPA													A	ma	ly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	M	М	Н	N	K	s	A	И	т	V	Z	С
No.				L	в	s	A	E	D	A	R	0	บ	E	В	G	N	G	I		E	G	A	니		N	N
SO	1.00	2243																									Х
S10	1.00	2244																									X
s30	1.00	2245																									X
S50	1.00	2246																									X
S100	1.00	2247																									X
S200	1.00	2248																									X
S300	1.00	2249																								\Box	X
ICV	1.00	2251																								\Box	X
ICB	1.00	2252																									X
LRS	1.00	2253																			l						X
LRS	1.00	2254																									_X
CCV	1.00	2254																									X
CCB	1.00	2255																									X
MAGNWPSUS14(3.0)S	1.00	2256																									X
MAGNWPSUS17(2.0)	1.00	2257																									X
MAGNWPSUS14(3.0)A	1.00	2258																									X
CCV	1.00	2259																									X
ССВ	1.00	2300																									X

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 07/31/03 End Date: 07/31/03

				Ι																					-		
EPA														\na			_										
Sample	D/F	Time	% R		s			В	1	c		С							1				И		V		C
No.				L	В	S	A	E	D	A	R	0	ŭ	E	В	G	N	G	I		E	G	A	L		N	N
s0	1.00	1336																									x
S10	1.00	1337																					Ш			Ш	_x
s30	1.00	1338																								Ш	_x
S50	1.00	1339																								Ш	_x
S100	1.00	1340																								Ш	_x
S200	1.00	1341																								Ш	_x
s300	1.00	1342																									_x
ICV	1.00	1343																									x
ICB	1.00	1344																									_x
LRS	1.00	1345																								Ш	X
LRS	1.00	1346																								Ш	_x
ccv	1.00	1347																								Ш	_x
ССВ	1.00	1348																								Ш	_x
ZZZZZZ	1.00	1349																								Ш	
PBS0731B	1.00	1350																									_x
LCSS0731B	1.00	1351																								Ш	_x
MAGNPDSSS12(0.3)	1.00	1352																			<u> </u>					Ш	_x
LCSDS0731B	1.00	1353																		Ĺ						Ш	_x
ZZZZZZ	1.00	1354																								Ш	
ZZZZZZ	1.00	1355																								Ш	_
ZZZZZZ	1.00	1356																									
ZZZZZZ	1.00	1357																									
ZZZZZZ	1.00	1358																								\Box	_
CCV	1.00	1359																					Ш			Ш	X
CCB	1.00	1400																									x

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/21/03 End Date: 08/21/03

EPA				<u> </u>									A	ma	.ly	tes	 3										
Sample	D/F	Time	% R	A	S	A	В	В	С	С	С	С	С	_		М		н	N	к	S	A	N	Т	v	Z	С
No.				L	В	s	A	1	D	A			ט			G		G	I		E	G	A			N	
S0	1.00	1334											х	Х	Х		Х		х			Х				х	_
S	1.00	1338												Х													
S	1.00	1342													x						L						_
S	1.00	1346											х				Х		Х			х			Ш	х	_
LRS	1.00	1350											Х	Х	х		X		x		L	X			Ш	х	_
LRS	1.00	1354											х	х	x		Х		x		L	Х			Ш	х	
LRS	1.00	1358											x	х	х		X		x			X				Х	
ICV	1.00	1403											х	х	x		x		X			x				Х	
ICB	1.00	1407											х	x	х		Х		X			х				х	
ICSA	1.00	1411											x	х	X		X		x			х				х	_
ICSAB	1.00	1415											х	х	х		Х		x			х				х	_
CRI	1.00	1419											х	x	х		X		Х			x				х	_
CCV	1.00	1423											х	x	x		Х		x			х				х	_
CCB	1.00	1427											х	x	x		X		x			х				х	
PBS0817A	1.00	1432											х	х	х		x		x			х				х	
LCSS0817A	1.00	1436											х	х	x		x		x			х				х	
AJAXWPSUS08 (1.2)	1.00	1440											х	х	$ \mathbf{x} $				x			х				х	
AJAXWPSUS09(1.0)	1.00	1444					ĺ						х	х	x				Х			Х				Х	
MAGNTASSS15(0.5)	1.00	1448					Ĺ						X	Х	х		Х		х		L	х				Х	
MAGNTASSS15(0.5)(100	1.00	1452											х	х	х		X		x		L	х			Ш	х	_
LUCABGSSS19(0.5)	1.00	1456			L								х	х	Х		X		Х		L	х			\bigsqcup	Х	
MAGNTASUS18 (1.5)	1.00	1500											$ \mathbf{x} $	х	х		X		Х		L	х				Х	
MAGNPDSSS12(0.3)	1.00	1504											$ \mathbf{x} $	х	x				Х			х				Х	
MAGNWPSSS16(0.5)	1.00	1508											x	x	Х		Х		х		L	x				Х	
ccv	1.00	1512											х	x	x		Х		Х		L	x				Х	
ССВ	1.00	1516											х	x	х		X		x		L	x				Х	
AJAXWPSUS10(2.0)	1.00	1520											х	x	x		Х		x		L	x				Х	
MAGNWPSUS14(3.0)	1.00	1524											х	х	x				x		L	х				х	_
MAGNWPSUS14(3.0)L	5.00	1529	-										х	x	x				x		L	х				Х	_
MAGNWPSUS14(3.0)A	1.00	1533											х	x	х				х			Х				Х	
MAGNWPSUS14(3.0)D	1.00	1537												x					Х			Х				х	_
MAGNWPSUS14(3.0)S	1.00	1541	-												х				х		<u>L</u>	Х			<u> </u>	Х	_
MAGNWPSUS17(2.0)	1.00	1545											x	x	х		Х		Х		L	Х				Х	_
PBS0807I	1.00	1549												x			Х		Х		L	Х		L		Х	_
LCSS0807I	1.00	1553												х			Х		Х		L	Х			Ļ	х	_
SHERWPSUS23(3.5)	1.00	1557													х		х		x		L	X		L	$oxed{oxed}$	Х	_
CCV	1.00	1601												х			Х		x		L	x			L	Х	
ССВ	1.00	1605		_									x	x	$ \mathbf{x} $		Х		x		L	x		L		X	iı

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/21/03 End Date: 08/21/03

EPA	1												P	na	ly	te	s									
Sample No.	D/F	Time	% R	A	S B	A S	B A	B E	C D	C A	C R	-	-	F E	1	M G	M N	H G	N	K	S E	A G	N A	V	_ [C N
CAPMWPSUS20(4.0)	1.00	1609											х	х	х		х		х			х		i	х	
CAPMWPSUS21(2.5)	1.00	1613											х	х	х		х		х			х	П	Ī	x	_
CAPMTASUS22(1.5)	1.00	1617											х	х	х		Х		х			х			х	_
CAPMWPSUS39(2.0)	1.00	1621						Ī					х	х	Х		Х		х			х			X	_
GRANBGSSS34 (0.5)	1.00	1625											х	х	х		Х		х			Х			Х	
GRANBGSSS35 (0.5)	1.00	1630											х	х	Х		Х		x			Х			X	_
GRANBGSSS36(0.5)	1.00	1634											х	х	Х		X		х			Х			Х	
SHERTASUS25 (1.5)	1.00	1638		Π									х	x	Х		Х		X			х			Х	
CCV	1.00	1642											х	х	Х		X		X			Х			x	_
CCB	1.00	1646											x	х	Х		X		X			х			Х	
ICSA	1.00	1650											х	х	Х		X		Х	,		х	\square		Х	_
ICSAB	1.00	1654					Ī .						x	х	Х		х		Х			Х			x	_
CRI	1.00	1658											х	х	х		X		Х			Х			x	
ccv	1.00	1702											х	x	Х		Х		X			Х			Х	_
CCB	1.00	1707											x	x	Х		Х		x			х			x	_

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/27/03 End Date: 08/28/03

EPA				l										na	lу	te:	3										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	м	Н	N	K	S	A	N	т	v	z	c
No.				L	В	S	A		D	A			U			G		G	I		E	G	A	L		N	N
S0	1.00	2147		Х	Х	Х	Х	Х	Х	Х	Х	х				X	X			X	X		X	X	x	\Box	\Box
S	1.00	2151		х						Х						Х				X			X			\perp	1
S	1.00	2154			Х	x															X			x		$oldsymbol{\perp}$	_
S	1.00	2158					х	Х	х		X	x					Х								x	\Box	_
LRS	1.00	2203		х	Х	х	X	X	Х	X	X	х				X	Х			X	X		X	x	x		_
LRS	1.00	2207		x	X	x	X	X	Х	x	X	х				X	X			X	X		Х	х	х		_ [
LRS	1.00	2211		х	Х	х	Х	X	Х	x	X	x				X	x			X	X		X	x	х		_
ICV	1.00	2215		х	X	x	Х	Х	Х	Х	X	x				X	Х			X	Х		X		х		_ [
ICB	1.00	2219		x	Х	х	Х	X	Х	Х	X	x				X	Х			X	X		Х	х	х		_
ICSA	1.00	2223		x	Х	х	X	X	x	x	Х	x				X	Х			X	X		-	Х	х		_
ICSAB	1.00	2228		х	X	x	Х	Х	Х	Х	X	x				X	Х			X	X		X	Х	х		_[
CRI	1.00	2232		x	х	х	х	х	x	x	X	x J				X	Х			X	X		X	Х	x	ot	
ccv	1.00	2236		х	Х	x	х	Х	х	Х	X	х				X	Х			Х	X		Х	x	x		_
CCB	1.00	2240		х	х	х	x	х	x	x	х	х				x	X			X	X			Х			
PBS0817A	1.00	2244		х	Х	х	х	Х	х	x	X	х				Х				X	X			х			_
LCSS0817A	1.00	2248		х	Х	х	х	Х	х	x	Х	х				Х				Х	X		Х	Х	x		
AJAXWPSUS08(1.2)	1.00	2252		х	х	х	х	Х	х	x	X	х				X				Х	X		Х	x	x	$oldsymbol{ol}}}}}}}}}}}}}}}}}}$	_
AJAXWPSUS09(1.0)	1.00	2256		х	Х	х	х	Х	х	x	Х	x				X				X	X		x	Х	х	$oldsymbol{\perp}$]
MAGNTASSS15(0.5)	1.00	2300		х	X		х	Х	Х	Х	X	x				X				Х	X		x		х	\Box	!
MAGNTASSS15(0.5)(100	1.00	2304		х	Х		X	X	Х	х	Х	х				Х				X	X		X		х	$oldsymbol{\bot}$	
LUCABGSSS19(0.5)	1.00	2308		Х	Х	Х	Х	Х	Х	X	X	x				X				X	X		X	Х	x		
MAGNTASUS18 (1.5)	1.00	2312		х	Х	Х	х	Х	X	Х	X	х				x				Х	X		Х		х		_
MAGNPDSSS12(0.3)	1.00	2317		х	Х		x	х	Х	х	Х	x				x				X	X		X		х		
MAGNWPSSS16(0.5)	1.00	2321		x	Х	х	X	х	Х	Х	Х	x				X				Х	X		X	x	х		_
ccv	1.00	2325		Х	Х	х	X	X	X	Х	Х	х				X	X			X	X		Х		х	Щ	
ССВ	1.00	2329		х	X	х	х	Х	Х	x	Х	x				X	Х			Х	X		X	Х	x	Щ	!
AJAXWPSUS10(2.0)	1.00	2333		х	Х	х	x	Х	X	Х	х	x				Х				Х			Х	X	х		
MAGNWPSUS14(3.0)	1.00	2337		Х	Х		x	Х	X	x	Х				<u> </u>	Х	Ц			Х	X		Х	_	x		!
MAGNWPSUS14(3.0)L	5.00	2341		x	X		Х	х	Х	X	Х	х				Х				Х	X		Х		х		
MAGNWPSUS14(3.0)A	1.00	2345		Х	Х		Х	х	X		Х	х									X			х		\square	
MAGNWPSUS14(3.0)D	1.00	2349		х	х		Х	х	X	x	Х	x	L			X				Х	Х			Х	-	Щ	
MAGNWPSUS14(3.0)S	1.00	2353		х	Х		Х	x	X		_	х			<u> </u>					Ш	Х			Х	_	ot	_
MAGNWPSUS17 (2.0)	1.00	2357		х	Х	х	Х	Х	X	Х	Х	х				Х					X		_	Х		oxed	
PBS0807I	1.00	0001		х	Х	х	X	х	x	Х		х				X					X		_	х		ot	_
LCSS0807I	1.00	0005		х	Х	x	Х	Х	Х	X	X	х				X				_	x	L		Х		$oxedsymbol{oxed}$	_
SHERWPSUS23(3.5)	1.00	0009		х	X	х	Х	X	X	Х	Х	х				x				_	x	<u> </u>		Х		Щ	_
CCV	1.00	0013		x	х	X	Х	X	X	Х		х				Х	Х			Х	X	<u> </u>		X		\square	
CCB	1.00	0018		х	Х	Х	x	Х	Х	x	X	x				X	Х			X	Х		Х	Х	х	ш	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/27/03 End Date: 08/28/03

EPA		·		Γ							•			Ana	lv	te	s										
Sample	D/F	Time	% R	A	s	A	B	В	С	Тс	Гс	С		F	P		м	ъ	N	T/	s	Α	N		v	Z	С
No.		ļ		L	В	s	A	i .	D	ı	1	1		E	В		N	G	I	1	E	G	A	L		N	
CAPMWPSUS20(4.0)	1.00	0022		х	х	х	x	х	x	x	x	x	╁		<u> </u>	X				Х		-	x	l	x		-
CAPMWPSUS21(2.5)	1.00	0026		x	х	х	x	x	_	x	-	x	H			х	Н				x	<u> </u>			x		
CAPMTASUS22 (1.5)	1.00	0030		x	х	х	x	x	!	x	_	x	I			Х	Н				X	 			Х		
CAPMWPSUS39(2.0)	1.00	0034		x	х	x	x	х	!	x		x	i			х				_	X	_	_		x		
GRANBGSSS34 (0.5)	1.00	0038		х	х	x	x	x	-	x		x	<u> </u>			х				_	х		X	_	Х		
GRANBGSSS35(0.5)	1.00	0042	**-	х	х	x	х	x	x	x	-	x		П		x				_	х			_	X		<u> </u>
GRANBGSSS36(0.5)	1.00	0046		х	х	х	x	х		x		x	<u> </u>			х			ᅥ		х		х		X	H	¦
SHERTASUS25(1.5)	1.00	0050		х	х	х	х	х		х		x				х		\dashv			х		X		X		¦
AJAXWPSUS08(1.2)	10.00	0054					l		_	<u> </u>							х		寸		-				台	\vdash	¦
AJAXWPSUS09(1.0)	10.00	0058						_									x		_	7	_				H		-¦
CCV	1.00	0102		х	х	х	х	х	x	х	X	x				х	x	1	ᅥ	X	x		x l	х	x	\dashv	-¦
ССВ	1.00	0106		х	х	х	х	х		x	х	_				x	x	ᅥ	+	X			x		X	_	¦
MAGNTASSS15(0.5)	10.00	0111				х												\dashv	ᅥ		-	_	끡		Ĥ	\dashv	-¦
MAGNTASSS15(0.5)(100	10.00	0115			T	х								1	_	1		7	\dashv	1	_	_	_		\vdash	\dashv	-¦
MAGNPDSSS12(0.3)	10.00	0119				x								\dashv			寸	1	\dashv	<u> </u>	ᅥ		ᅥ	_	\vdash	\dashv	-¦
MAGNWPSUS14(3.0)	10.00	0123	, , , , , , , , , , , , , , , , , , ,			х						Н		_	7	ᅥ	x	7	\dashv	\dashv	7		ᅢ			\dashv	-¦
MAGNWPSUS14(3.0)L	50.00	0127			寸	х							\dashv	\dashv	ᅥ	┪	x	+	\dashv	_		-	ᅥ	_	\dashv	ᆉ	-¦
MAGNWPSUS14(3.0)A	10.00	0131		T		x							_	十		+	$\frac{1}{\mathbf{x}}$	\dashv	- †	┪	+	┪	ᅥ	_	\dashv	十	-¦
MAGNWPSUS14(3.0)D	10.00	0135				x							\exists	寸	7		$\frac{1}{x}$	7	+	ᅥ	\dashv	┪			\dashv	+	۰¦
MAGNWPSUS14(3.0)S	10.00	0139				\mathbf{x}	T	_			_	i	一	\neg	┪	<u>ļ</u>	x	十	+	┪	_	ᅥ	+	ᅥ	\dashv	十	-¦
CCV	1.00	0143		x	\mathbf{x}	\mathbf{x}	х	х	х	x	х	x	7	-+	1	_	x	1	\dagger	ᆔ	\mathbf{x}^{\dagger}	ᅥ	x	х	ᆉ	十	-¦
CCB	1.00	0147		x	x	x	x	\mathbf{x}	х	x	х			十		-	x	\dashv	<u>-</u>	x			x	_	$\frac{\lambda}{x}$	十	-¦
ICSA	1.00	0151		x	\mathbf{x}		\mathbf{x}		х		x		ᅥ	\dashv	_		x	\dashv		x		-+	x	-	$\frac{\Lambda}{X}$	\dashv	-¦
ICSAB	1.00	0155		\mathbf{x}		<u> </u>	х	х	_		х		\dashv	寸		<u> </u>	x	十	<u> </u>	xl	- Ļ.			x		+	-¦
CRI	1.00	0200		x	x	$\frac{1}{x}$	 +		x		х		\dagger	十		_	x	\dashv		x	_ !	_	x		$\frac{\hat{x}}{x}$	+	-
CCV	1.00	0204		\mathbf{x}	x	\mathbf{x}		x	_	_	х	_	\dashv	十		-	x	\dagger	- +	x	_				$\frac{\hat{x}}{x}$	+	-1
ССВ	1.00	0208		x	\mathbf{x}	x i	_	x		_	х		\dashv	+	_	- -	x	+	<u>-</u>	xl		<u></u> _		$\frac{x}{x}$		十	-¦

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 08/28/03 End Date: 08/28/03

EPA												F	na	ly	te	s										
Sample No.	D/F	Time	% R	A	S B	A S		B E	C D	C A	C 0		F E	P B	M G		H G	N	K	S E	A G	N A	T L	V	Z N	С
S0	1.00	1001														Х				Х						
S	1.00	1006																								
S	1.00	1010																		Х						
S	1.00	1014														Х										
LRS	1.00	1020														X				x						
LRS	1.00	1025														Х				Х						
LRS	1.00	1030														Х				Х						
ICV	1.00	1035														Х				x						
ICB	1.00	1040														х				x						
ICSA	1.00	1045														х				х						
ICSAB	1.00	1050														Х				Х						
CRI	1.00	1055				İ						ĺ				Х				х						-
CCV	1.00	1101						İ								Х				X						
CCB	1.00	1106					Ī									Х				X						
ZZZZZZ	1.00	1111					1		Г	Ī		Π														
AJAXWPSUS10(2.0)	1.00	1116					Ī					Ī								x						
ZZZZZZ	1.00	1121				İ		ĺ																		
ZZZZZZ	5.00	1126																								
ZZZZZZ	1.00	1131																								
ZZZZZZ	1.00	1136			Ì	İ																				\Box
ZZZZZZ	1.00	1141							Ì																	
MAGNPDSSS12(0.3)	100.00	1146								Ī						х										
ZZZZZZ	1.00	1151																								
CAPMWPSUS20(4.0)	1.00	1156																		х						
ccv	1.00	1201														X				х						
CCB	1.00	1206														X				Х						
ZZZZZZ	1.00	1211																								
ICSA	1.00	1216														X				Х						
ICSAB	1.00	1222														Х				Х						
CRI	1.00	1227					ļ									х				X						
CCV	1.00	1232														Х				х						
CCB	1.00	1237					I^{-}									х				x						

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Leeman Hydra AA</u> Method: <u>CV</u>

Start Date: 08/04/03 End Date: 08/04/03

EPA								-					P	na	lу	te											
Sample	D/F	Time	% R	A	s	Α	В	В	c	С	С	С	С	F	P	М	М	Н	N	K	s	A	N	Т	V	z	ट
No.				L	В	s	A	E	ם	A	R	0	υ	E	В	G	И	G	I		E	G	A	L		N	N
S0	1.00	1112		Т														Х									二
S0.2	1.00	1114																X									_
S0.5	1.00	1116																Х									
S1	1.00	1117																Х									
S5	1.00	1119																X									
S10	1.00	1121																X									
ICV	1.00	1123																Х									
ICB	1.00	1125																X									
CRA	1.00	1126																Х									
ccv	1.00	1128																Х									
CCB	1.00	1130																Х								\Box	
PBS0731A	1.00	1133																X								\sqcup	
LCSS0731A	1.00	1134																X								Ш	
ZZZZZZ	1.00	1136																								Ш	
ZZZZZZ	1.00	1138																								Ш	_
ZZZZZZ	1.00	1140					ŀ																				
ZZZZZZ	1.00	1142																									
ZZZZZZ	1.00	1144																									_
ZZZZZZ	1.00	1146		Π																							_
ZZZZZZ	1.00	1148																								Ш	
ccv	1.00	1150																X			<u> </u>						
CCB	1.00	1152		1														X								Ш	
ZZZZZZ	1.00	1153					1																			Ш	
ZZZZZZ	1.00	1155																									
ZZZZZZ	1.00	1157																								\bigsqcup	
ZZZZZZ	1.00	1159																								Ш	
ZZZZZZ	1.00	1201																								Ш	[
ZZZZZZ	1.00	1203																									!
SHERWPSUS23(3.5)	1.00	1205																Х									_
CAPMWPSUS20(4.0)	1.00	1207																X				L					_
CAPMWPSUS21(2.5)	1.00	1208																Х								Ш	_
ccv	1.00	1210																Х	_							Ш	
ССВ	1.00	1212																Х								Ш	1
CAPMTASUS22(1.5)	1.00	1214																Х					L				_
SHERTASUS25(1.5)	1.00	1216																X									
CAPMWPSUS39(2.0)	1.00	1218																Х									_
GRANBGSSS34(0.5)	1.00	1220																Х	-							Щ	_
GRANBGSSS35(0.5)	1.00	1222																X						L	<u> </u>		

14

ANALYSIS RUN LOG

 Lab Name: STL BURLINGTON
 Contract: 23046

 Lab Code: STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCS002

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/04/03 End Date: 08/04/03

EPA										P	na	lу	te	s								
Sample No.	D/F	Time	ક	R	A L	A S	B E	ı	C R					M N			S E	A G	T L	- 1	z N	ı
GRANBGSSS36(0.5)	1.00	1224													Х							
ZZZZZZ	1.00	1226																				L
ZZZZZZ	1.00	1228																				Ĺ
ZZZZZZ	1.00	1230																				L
CCV	1.00	1232													Х							L
CCB	1.00	1234					Π	Ī							х						П	Π

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/14/03 End Date: 08/14/03

EPA]			-							P	na	lу	te	3										
Sample	D/F	Time	% R	A	S	A	В	В	С	С	С	С	С	F	P	М	М	н	N	К	s	A	N	Т	v	Z	С
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	N	G	I		E	G	A	L		И	N
SO	1.00	1016																X									
S0.2	1.00	1018																X		L	<u> </u>						
s0.5	1.00	1019																X									
S1	1.00	1021																X							<u> </u>		
S5	1.00	1023																X									_
S10	1.00	1025																X									
ICV	1.00	1027																X								\bigsqcup	_
ICB	1.00	1029																Х								\square	
CRA	1.00	1031																Х			L						
ccv	1.00	1033																X									
CCB	1.00	1035																Х								Ш	
ZZZZZZ	1.00	1036																								Ш	
ZZZZZZ	1.00	1038																	L						<u> </u>	Ш	L.
ZZZZZZ	1.00	1040							_																	Ш	<u>_</u>
ZZZZZZ	1.00	1042																	L								<u> </u>
ZZZZZZ	1.00	1044																									L.
ZZZZZZ	1.00	1046																									
ZZZZZZ	1.00	1048																			L						I
ZZZZZZ	1.00	1049																									ا_ا
ZZZZZZ	1.00	1051																								Ш	L.
ccv	1.00	1053	ĺ															X									!
CCB	1.00	1055																Х								Ш	Цļ
ZZZZZZ	1.00	1057																									<u> </u>
ZZZZZZ	1.00	1058					<u> </u>																		<u> </u>		<u> </u>
ZZZZZZ	1.00	1100																	_					L			
ZZZZZZ	1.00	1102																									L.
ZZZZZZ	1.00	1104																			<u> </u>						L!
ZZZZZZ	1.00	1105						<u> </u>			L											L					Ļ!
ZZZZZZ	1.00	1107		<u> </u>			<u>L</u>						L							_					<u> </u>		ا_ا
ZZZZZZ	1.00	1109									<u> </u>											<u> </u>			<u> </u>		<u>L</u> !
ZZZZZZ	1.00	1111									<u> </u>					L	Ш		L		<u> </u>		L	<u> </u>	Ļ		<u> </u>
CCV	1.00	1113											L			L		Х		<u> </u>				<u> </u>		L	<u> </u>
ССВ	1.00	1115															Ш	Х	L	L	<u></u>	<u> </u>			<u> </u>		<u> </u>
ZZZZZZ	1.00	1116						$oxedsymbol{oxedsymbol{oxed}}$							L				_	L	<u> </u>	L		L	<u> </u>		<u></u>
ZZZZZZ	1.00	1118									L					L			L	Ļ		L		L	L	L	<u>_</u>
ZZZZZZ	1.00	1120											L					<u> </u>		L		Ļ	<u> </u>	L		L	<u> </u>
ZZZZZZ	1.00	1122																	_	L		L		<u>_</u>		L	Ļ.∣
ZZZZZZ	1.00	1124																						L.	L	L	<u>L</u>

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/14/03 End Date: 08/14/03

EPA													7	lna	ıly	te	s										
Sample No.	D/F	Time	% R	A	S B	A S		B E		C A	1	C 0				M G		H G	N	K	S E	A G	N A	T L	٧	Z N	C N
ZZZZZZ	1.00	1126																									
ZZZZZZ	1.00	1128																								Ш	
ZZZZZZ	1.00	1130																								Ш	
PBS0808C	1.00	1131																Х									
ccv	1.00	1133			İ													X									\equiv \mid
CCB	1.00	1135																Х									<u> </u>
LCSS0808C	1.00	1137		Î														Х								\Box	
AJAXWPSUS08(1.2)	1.00	1139					İ											х									_
ZZZZZZ	1.00	1141											Î														_
ZZZZZZ	1.00	1143																	Î							П	_l
ZZZZZZ	1.00	1144		Π													Ì		Î							П	٦I
LUCABGSSS19(0.5)	1.00	1146																Х	Ì							П	٦
MAGNTASUS18 (1.5)	1.00	1148				Г	i .											Х									_
MAGNPDSSS12(0.3)	1.00	1150																х	Î							П	_ i
MAGNWPSSS16(0.5)	1.00	1152		Г			<u> </u>											Х								П	٦
ccv	1.00	1154		İ														Х								П	_
ССВ	1.00	1156		İ														х								П	_ i
AJAXWPSUS10(2.0)	1.00	1157		i									Ì					х									_i
MAGNWPSUS14(3.0)	1.00	1159							Г									Х	Ì								
MAGNWPSUS14(3.0)D	1.00	1201																х									-I
MAGNWPSUS14(3.0)S	1.00	1203					i											Х	Ì								
ZZZZZZ	1.00	1205		İ			İ																				
ZZZZZZ	1.00	1206					Ì						1														_i
ZZZZZZ	1.00	1208		Ī		i	Ī		Ī			Γ	Ī		П											П	_
ZZZZZZ	1.00	1210					ī			П			Π		П												
ZZZZZZ	1.00	1212				İ	i					<u> </u>							Ì						ĺ		_
CCV	1.00	1213				Ì						1	Ī					х									
ССВ	1.00	1215		Ī		İ			İ				Π					х								П	_ i

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/14/03 End Date: 08/14/03

															_												\neg
EPA				_				,		,		_		۱na									r				
Sample	D/F	Time	% R			A		В		С						М		H				A	И		٧		C
No.				L	В	S	A	E	D	A	R	0	Ŭ	E	В	G	И	G	I		E	G	A	L		И	И
S0	1.00	1257																Х									!
S0.2	1.00	1259																X									!
S0.5	1.00	1301																X									
S1	1.00	1302																Х									_
S5	1.00	1304																X									[
S10	1.00	1306																Х		L							_!
ICV	1.00	1308																X									_
ICB	1.00	1309																X									
CRA	1.00	1311																X									_
ccv	1.00	1313																X									[
CCB	1.00	1314																X									
ZZZZZZ	10.00	1316		Ī																							[
ZZZZZZ	10.00	1318		Ī																							_
ZZZZZZ	10.00	1319					<u> </u>																				
ZZZZZZ	10.00	1321																									_
AJAXWPSUS09(1.0)	10.00	1323																X									
MAGNTASSS15(0.5)	10.00	1325																X									_
MAGNTASSS15(0.5)(100	10.00	1326			Ī		1											X									
ZZZZZZ	10.00	1328		Ī																							_
ZZZZZZ	10.00	1330		Π	ĺ		<u> </u>																				_
CCV	1.00	1332		Ī			ĺ											Х									_
ССВ	1.00	1334	-	İ	ĺ	Ì	ĺ											X									_
ZZZZZZ	10.00	1335				Ī																					_
MAGNWPSUS17 (2.0)	10.00	1337		Г					Ī									Х									_
ZZZZZZ	10.00	1339		Π			Ì		Π																		_
ccv	1.00	1341		Ī				Π										Х									<u> </u>
ССВ	1.00	1343					Ī	Π					Π					х									i



Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name:	STL BURLINGTON Con	ntract: 23046	·
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.:GCS002-SPLP
SOW No.:	ILM04.1	-	
SON NO			
	EPA Sample No.	Lab Sample ID.	
	AJAXWPSUS08 (1.2) SPLP	535439	
	AJAXWPSUS09 (1.0) SPLP	535441	
	AJAXWPSUS10(2.0)SPLP	535453	
	CAPMWPSUS20 (4.0) SPLP	534802	
	CAPMWPSUS21 (2.5) SPLP	534804	· · · · · · · · · · · · · · · · · · ·
	CAPMWPSUS39 (2.0) SPLP	534808	
	GRANBGSSS34 (0.5) SPLP	534810	
	GRANBGSSS35 (0.5) SPLP	534812	
	GRANBGSSS36 (0.5) SPLP	534814	
	LUCABGSSS19(0.5)SPLP	535447	
• .	MAGNTASSS15 (0.5) SPLP	535443	
•	MAGNTASSS150.5100SPLP	535445	
	MAGNWPSSS16(0.5)SPLP	535451	
	MAGNWPSUS14(3.0)SPLP	535455	<u> </u>
	MAGNWPSUS143.0SPLPD	535455DP	<u>.</u>
	MAGNWPSUS143.0SPLPS	535455MS	·
	MAGNWPSUS17 (2.0) SPLP	535457	
	SHERWPSUS23 (3.5) SPLP	534800	
Word ICI	de interplement gorregtions applied?		/- VFC
	or interelement corrections applied?		Yes/No YES
	background corrections applied? yes-were raw data generated before		Yes/No YES
	olication of background corrections?		Yes/No NO NO
Comments:			
contract above. computer	y that this data package is in compl , both technically and for completer Release of the data contained in thi -readable data submitted on diskette or the Manager's designee, as verifi	ness, for other than th is hardcopy data packa e has been authorized h	he conditions detailed ge and in the by the Laboratory
Signature	e:	Name:	
Date:		Title:	

COVER PAGE - IN

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPSUS08 (1.2) SPLP

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002-SPLP

 Matrix (soil/water):
 WATER
 Lab Sample ID:
 535439

 Level (low/med):
 Low
 Date Received:
 07/22/03

% Solids: 0.0

	T	r			
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	46.4	В]	P
7440-36-0	Antimony	4.3	В		P
7440-38-2	Arsenic	5.9	В		P
7440-39-3	Barium	11.5	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.38	B		P
7440-70-2	Calcium	12100			P
7440-47-3	Chromium	1.1	В		P
7440-48-4	Cobalt	1.8	ע		P
7440-50-8	Copper	3.0	В		P
7439-89-6	Iron	66.7	טן		P
7439-92-1	Lead	2.1	B		P
7439-95-4	Magnesium	3800	В		P
7439-96-5	Manganese	0.70	שן		P
7439-97-6	Mercury	10.0	שן		cv
7440-02-0	Nickel	2.0	Įυ		P
7440-09-7	Potassium	1420	В		P
7782-49-2	Selenium	2.2	В		P
7440-22-4	Silver	0.90	ע		P
7440-23-5	Sodium	1220	В		P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	6.8	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
_				
_		***		

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPSUS09(1.0)SPLP

Lab Name:	STL BURLINGT	ON		Contract:	23046			
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCS002-SPLP	
Matrix (so	il/water): W	ATER		Lab	Sample ID:	535441		
Level (low	/med): LOW			Dat	e Received:	07/22/03		

% Solids: 0.0

	T	Т			
CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	18.3	U		P
7440-36-0	Antimony	4.0	В	ļ	P
7440-38-2	Arsenic	2.4	ש	1	P
7440-39-3	Barium	7.9	В		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	10900	J		P
7440-47-3	Chromium	0.99	В		P
7440-48-4	Cobalt	1.8	שן		P
7440-50-8	Copper	3.0	В		P
7439-89-6	Iron	66.7	ט		P
7439-92-1	Lead	1.5	ע		P
7439-95-4	Magnesium	2960	В		P
7439-96-5	Manganese	0.70	ע		P
7439-97-6	Mercury	10.0	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	706	В		P
7782-49-2	Selenium	1.7	ן ט		P
7440-22-4	Silver	0.90	ՄՄ		P
7440-23-5	Sodium	12000			P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.2	ן ט		P
7440-66-6	Zinc	5.7	ן ט		P

Color Befor	ce: colorless	Clarity Before:	clear	Texture:	
Color After	c: colorless	Clarity After:	clear	Artifacts:	
Comments:					
				_	

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPSUS10(2.0)SPLP

Lab Name:	STL BURLINGTON		Contract:	23046	<u> </u>	
Lab Code:	STLVT C	ase No.: 23046	SAS No.:		SDG No.:	GCS002-SPLP
Matrix (so	il/water): WAT	ER	Lab	Sample ID:	535453	
Level (low	/med): <u>LOW</u>		Dat	e Received:	07/22/03	

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	284	П		P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	2.4	טן		P
7440-39-3	Barium	107	В		P
7440-41-7	Beryllium	0.23	В	l	P
7440-43-9	Cadmium	0.94	B]	P
7440-70-2	Calcium	1980	В		P
7440-47-3	Chromium	0.60	ט		P
7440-48-4	Cobalt	1.8	ט	l .	P
7440-50-8	Copper	25.3	1	ļ .	P
7439-89-6	Iron	66.7	υ.	•	P
7439-92-1	Lead	1.5	ļυ	[P
7439-95-4	Magnesium	924	В	}	P
7439-96-5	Manganese	495	1		P
7439-97-6	Mercury	10.0	טן		cv
7440-02-0	Nickel	11.2	В		P
7440-09-7	Potassium	3190	В		P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	0.90	ט		P
7440-23-5	Sodium	5600			P
7440-28-0	Thallium	2.8	טן		P
7440-62-2	Vanadium	2.2	ען		P
7440-66-6	Zinc	45.2			P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
	····				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPSUS20 (4.0) SPLP

Lab Name:	STL BURLING	TON	Co:	ntract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCS002-SPLP
Matrix (so	il/water):	WATER		Lat	Sample ID:	534802	

Date Received: 07/18/03

% Solids: 0.0

Level (low/med):

LOW

		1	_	I	
CAS No.	Analyte	Concentration	C	Ω	M
7429-90-5	Aluminum	7060			P
7440-36-0	Antimony	3.8	טן		P
7440-38-2	Arsenic	4.7	В		P
7440-39-3	Barium	53.1	B	}	P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	שן		P
7440-70-2	Calcium	1270	B		P
7440-47-3	Chromium	2.7	В		P
7440-48-4	Cobalt	1.8	U		P
7440-50-8	Copper	6.1	В		P
7439-89-6	Iron	5440			P
7439-92-1	Lead	2.2	B		P
7439-95-4	Magnesium	834	В		P
7439-96-5	Manganese	54.7	1		P
7439-97-6	Mercury	16.5	B		cv
7440-02-0	Nickel	2.0	Įυ		P
7440-09-7	Potassium	794	B		P
7782-49-2	Selenium	1.7	Մ		P
7440-22-4	Silver	0.90	שן		P
7440-23-5	Sodium	6250			P
7440-28-0	Thallium	2.8	טן		P
7440-62-2	Vanadium	14.4	В		P
7440-66-6	Zinc	22.3	1		P

Color Before:	pale yellow	Clarity Before:	clear	Texture: _	
Color After:	colorless	Clarity After:	clear	Artifacts: _	
Comments:					
_				<u> </u>	
-					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPSUS21 (2.5) SPLP

Lab Name:	STL BURLING	TON		Contract:	23046			_
Lab Code:	STLVT	Case No.:	23046	SAS No.	:	SDG No.:	GCS002-SPLP	
Matrix (so	il/water):	WATER		Lal	o Sample ID:	534804		
Level (low	/med): <u>LO</u>	<u>w</u>		Da	te Received:	07/18/03		

Concentration Units (ug/L or mg/kg dry weight): UG/L

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	126	В		P
7440-36-0	Antimony	6.3	В	l	P
7440-38-2	Arsenic	21.2			P
7440-39-3	Barium	16.1	В]	P
7440-41-7	Beryllium	0.20	ט		P
7440-43-9	Cadmium	0.30	ען]	P
7440-70-2	Calcium	11200	}		P
7440-47-3	Chromium	0.96	B		P
7440-48-4	Cobalt	1.8	טן		P
7440-50-8	Copper	8.7	В		P
7439-89-6	Iron	255	1		P
7439-92-1	Lead	2.3	В		P
7439-95-4	Magnesium	1190	В		P
7439-96-5	Manganese	5.0	В]	P
7439-97-6	Mercury	20.2			cv
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	2990	В		P
7782-49-2	Selenium	3.3	В		P
7440-22-4	Silver	0.90	שן		P
7440-23-5	Sodium	5610			P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	36.3			P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPSUS39(2.0)SPLP

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Matrix (soil/water): WATER Lab Sample ID: 534808

Level (low/med): LOW Date Received: 07/18/03

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	3200			P
7440-36-0	Antimony	3.8	טן	1	P
7440-38-2	Arsenic	2.7	В		P
7440-39-3	Barium	32.0	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	766	В		P
7440-47-3	Chromium	1.9	В		P
7440-48-4	Cobalt	1.8	שן		P
7440-50-8	Copper	6.0	В		P
7439-89-6	Iron	2170			P
7439-92-1	Lead	2.1	В		P
7439-95-4	Magnesium	320	В		P
7439-96-5	Manganese	51.0			P
7439-97-6	Mercury	17.1	В		CV
7440-02-0	Nickel	2.0	ען		P
7440-09-7	Potassium	479	В		P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.90	מ		P
7440-23-5	Sodium	16100			P
7440-28-0	Thallium	2.8	ր		P ·
7440-62-2	Vanadium	4.3	В		P
7440-66-6	Zinc	17.1	В		P

Color Before:	pale yellow	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGSSS34 (0.5) SPLP

Lab Name:	STL BURLINGTO	N	Con	tract: 2	3046		
Lab Code:	STLVT	Case No.: 2	23046	SAS No.:		SDG No.:	GCS002-SPLP
Matrix (soi	il/water): WA	TER		Lab	Sample ID:	534810	
Level (low,	med): LOW			Date	Received:	07/18/03	

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	1010			P
7440-36-0	Antimony	4.1	B	İ	P
7440-38-2	Arsenic	2.4	שן		P
7440-39-3	Barium	11.5	В		P
7440-41-7	Beryllium	0.20	ן ט .	ļ	P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	777	В		P
7440-47-3	Chromium	0.99	В		P
7440-48-4	Cobalt	1.8	טן		P
7440-50-8	Copper	4.7	B		P
7439-89-6	Iron	405			P
7439-92-1	Lead	3.0	B		P
7439-95-4	Magnesium	293	ĺū		P
7439-96-5	Manganese	19.9			P
7439-97-6	Mercury	20.0			CV
7440-02-0	Nickel	2.0	Įυ		P
7440-09-7	Potassium	651	B		P
7782-49-2	Selenium	3.0	В		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	17400			P
7440-28-0	Thallium	2.8	ן ט		P
7440-62-2	Vanadium	2.2	טן		P
7440-66-6	Zinc	13.2	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:			.,	

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGSSS35 (0.5) SPLP

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002-SPLP

 Matrix (soil/water):
 WATER
 Lab Sample ID:
 534812

 Level (low/med):
 Low
 Date Received:
 07/18/03

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	1380			P
7440-36-0	Antimony	3.8	שן		P
7440-38-2	Arsenic	2.4	lα		P
7440-39-3	Barium	13.3	В		P
7440-41-7	Beryllium	0.20	lα	J	P
7440-43-9	Cadmium	0.30	lα		P
7440-70-2	Calcium	1200	В		P
7440-47-3	Chromium	1.1	В		P
7440-48-4	Cobalt	1.8	ט		P
7440-50-8	Copper	5.0	В	ļ	P
7439-89-6	Iron	362			P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	293	Įυ		P
7439-96-5	Manganese	6.8	В		P
7439-97-6	Mercury	14.4	В		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	475	В		P
7782-49-2	Selenium	2.3	В		P
7440-22-4	Silver	0.90	ע		P
7440-23-5	Sodium	15500			P
7440-28-0	Thallium	2.8	ט		P
7440-62-2	Vanadium	2.2	ע		P
7440-66-6	Zinc	7.8	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGSSS36(0.5)SPLP

Lab Name: S	TL BURLINGTON	Contract:	23046		
Lab Code: S	TLVT Case No.:	SAS No.	: SI	OG No.:	GCS002-SPLP
Matrix (soil	/water): WATER	La	b Sample ID: 53	34814	
Level (low/m	ned): LOW	Da	te Received: 0	7/18/03	

Concentration Units (ug/L or mg/kg dry weight): UG/L

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	10100			P
7440-36-0	Antimony	3.9	В	l	P
7440-38-2	Arsenic	6.5	В		P
7440-39-3	Barium	165	В		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	2040	B		P
7440-47-3	Chromium	4.9	В		P
7440-48-4	Cobalt	2.4	В		P
7440-50-8	Copper	8.5	B		P
7439-89-6	Iron	5070	Ī		P
7439-92-1	Lead	3.3			P
7439-95-4	Magnesium	930	B		P
7439-96-5	Manganese	211			P
7439-97-6	Mercury	21.0			CV
7440-02-0	Nickel	5.0	В		P
7440-09-7	Potassium	1770	В		P
7782-49-2	Selenium	3.7	В		P
7440-22-4	Silver	0.90	[ט		P
7440-23-5	Sodium	18900			P
7440-28-0	Thallium	2.8	ט		P
7440-62-2	Vanadium	10.2	В		P
7440-66-6	Zinc	25.2			P

Color Before:	pale yellow	Clarity Before:	clear	Texture:
Color After:	pale yellow	Clarity After:	clear	Artifacts:
Comments: _				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LUCABGSSS19(0.5)SPLP

Lab Name:	STL BURLINGTON	Contract: 23046	·
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCS002-SPLP
Matrix (so	il/water): WATER	Lab Sample ID:	535447
Level (low	/med): LOW	Date Received:	07/22/03

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	534		İ	P
7440-36-0	Antimony	3.8	שן	İ	P
7440-38-2	Arsenic	2.4	טן		P
7440-39-3	Barium	9.9	В		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.33	В		P
7440-70-2	Calcium	1440	В		P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	1.8	Įΰ		P
7440-50-8	Copper	3.9	В		P
7439-89-6	Iron	266		l	P
7439-92-1	Lead	1.7	В		P
7439-95-4	Magnesium	347	В		P
7439-96-5	Manganese	31.4			P
7439-97-6	Mercury	10.0	ן ט		CV
7440-02-0	Nickel	2.0	ľσ		P
7440-09-7	Potassium	711	B		P
7782-49-2	Selenium	2.0	В		P
7440-22-4	Silver	0.90	ս		P
7440-23-5	Sodium	5140			P
7440-28-0	Thallium	2.8	ן ט		P
7440-62-2	Vanadium	2.2	ש		P
7440-66-6	Zinc	5.7	ן ט		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNTASSS15(0.5)SPLP

Lab Name:	STL BURLING	ron		Contract:	23046	<u></u>		-
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCS002-SPLP	
Matrix (so	il/water): 1	WATER		Lab	Sample ID:	535443		
Level (low	/med): <u>LOW</u>			Dat	e Received:	07/22/03		

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	54.5	В		P
7440-36-0	Antimony	7.5	В	1	P
7440-38-2	Arsenic	18.1			P
7440-39-3	Barium	10.0	B		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	JU		P
7440-70-2	Calcium	1950	В		P
7440-47-3	Chromium	0.60	ען		P
7440-48-4	Cobalt	1.8	ע		P
7440-50-8	Copper	6.9	В		P
7439-89-6	Iron	392			P
7439-92-1	Lead	17.9	1		P
7439-95-4	Magnesium	802	В		P
7439-96-5	Manganese	4.0	В		P
7439-97-6	Mercury	10.0	ען		cv
7440-02-0	Nickel	2.0	ט		P
7440-09-7	Potassium	743	В		P
7782-49-2	Selenium	2.7	В		P
7440-22-4	Silver	0.90	ע		P
7440-23-5	Sodium	6950	1 1		P
7440-28-0	Thallium	2.8	ע		P
7440-62-2	Vanadium	2.2	ן ט		P
7440-66-6	Zinc	12.0	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNTASSS150.5100SPLP

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002-SPLP

 Matrix (soil/water):
 WATER
 Lab Sample ID:
 535445

Date Received: 07/22/03

% Solids: 0.0

Level (low/med): LOW

CAS No.	Analyte	Concentration	С	· Q	М
7429-90-5	Aluminum	34.0	В		P
7440-36-0	Antimony	7.5	B		P
7440-38-2	Arsenic	18.8	Ī]	P
7440-39-3	Barium	10.9	В	1	P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.30	U	İ	P
7440-70-2	Calcium	1750	В	1	P
7440-47-3	Chromium	0.93	B	<u> </u>	P
7440-48-4	Cobalt	1.8	U		P
7440-50-8	Copper	3.8	В		P
7439-89-6	Iron	294	Ī		P
7439-92-1	Lead	16.4	Ī		P
7439-95-4	Magnesium	630	В		P
7439-96-5	Manganese	3.6	В		P
7439-97-6	Mercury	12.2	В		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	384	В		₽
7782-49-2	Selenium	3.6	В		P
7440-22-4	Silver	0.96	В		P
7440-23-5	Sodium	17000	T		P
7440-28-0	Thallium	2.8	ט		P
7440-62-2	Vanadium	2.2	ן טן		P
7440-66-6	Zinc	5.7	ן ט		P

Color Before	: colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPSSS16(0.5)SPLP

Lab Name: STL B	RLINGTON	Contract: 23046	
Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCS002-SPLP
Matrix (soil/wat	er): WATER	Lab Sample ID:	535451
Level (low/med):	LOW	Date Received:	07/22/03

% Solids: 0.0

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CAS No.	Analyte	Concentration	C	Q	M·
7429-90-5	Aluminum	1840	1		P
7440-36-0	Antimony	3.8	שן		P
7440-38-2	Arsenic	6.1	В		P
7440-39-3	Barium	54.2	В		P
7440-41-7	Beryllium	0.36	В		P
7440-43-9	Cadmium	1.4	B		P
7440-70-2	Calcium	60900			P
7440-47-3	Chromium	5.2	B]	P
7440-48-4	Cobalt	19.5	В		P
7440-50-8	Copper	97.7			P
7439-89-6	Iron	3880			P
7439-92-1	Lead	72.6			P
7439-95-4	Magnesium	1940	В		P
7439-96-5	Manganese	1050			P
7439-97-6	Mercury	10.0	טן		CV
7440-02-0	Nickel	17.1	В]	P
7440-09-7	Potassium	1120	B		P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	0.90	ען		P
7440-23-5	Sodium	3630	B	1	P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.2	ען		P
7440-66-6	Zinc	122			P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPSUS14 (3.0) SPLP

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002-SPLP

 Matrix (soil/water):
 WATER
 Lab Sample ID:
 535455

 Level (low/med):
 LOW
 Date Received:
 07/22/03

% Solids: 0.0

CAS No.	Analyte	Concentration	С	0	м
CAS NO.	rinary ce	000001.01.01.01.		~	
7429-90-5	Aluminum	18.3	ט		P
7440-36-0	Antimony	5.3	B		P
7440-38-2	Arsenic	2.4	שן		P
7440-39-3	Barium	29.9	B		P
7440-41-7	Beryllium	0.20	מן		P
7440-43-9	Cadmium	2.5	В		P
7440-70-2	Calcium	359000	-		P
7440-47-3	Chromium	0.60	Įυ		P
7440-48-4	Cobalt	3.0	В		P
7440-50-8	Copper	3.2	В		P
7439-89-6	Iron	66.7	טן		P
7439-92-1	Lead	1.5	טן		P
7439-95-4	Magnesium	31200			P
7439-96-5	Manganese	5740			P
7439-97-6	Mercury	10.0	טן		CV
7440-02-0	Nickel	29.8	В		P
7440-09-7	Potassium	3030	B		P
7782-49-2	Selenium	4.7	В		P
7440-22-4	Silver	0.90	טן		P
7440-23-5	Sodium	6330	1		P
7440-28-0	Thallium	4.7	В		P
7440-62-2	Vanadium	2.2	ĮŪ		P
7440-66-6	Zinc	5.7	ען		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPSUS17(2.0)SPLP

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002-SPLP

 Matrix (soil/water):
 WATER
 Lab Sample ID:
 535457

 Level (low/med):
 LOW
 Date Received:
 07/22/03

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	18.3	U		P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	2.4	שן		P
7440-39-3	Barium	11.0	В		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	13800			P
7440-47-3	Chromium	0.89	В		P
7440-48-4	Cobalt	1.8	טן		P
7440-50-8	Copper	2.9	В		P
7439-89-6	Iron	66.7	Įυ		P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	2710	В		P
7439-96-5	Manganese	1.3	В		P
7439-97-6	Mercury	12.4	B		cv
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium	933	В	l	P
7782-49-2	Selenium	2.6	B		P
7440-22-4	Silver	0.90	ען		P
7440-23-5	Sodium	5280			P
7440-28-0	Thallium	2.8	טן		P
7440-62-2	Vanadium	2.2	טן		P
7440-66-6	Zinc	5.7	שן		P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SHERWPSUS23(3.5)SPLP

Lab Name:	Name: STL BURLINGTON Code: STLVT Case No.: 2304 ix (soil/water): WATER	Co	ontract:	23046				
Lab Code:	STLVT	Case No.: 2	23046	SAS No.:		SDG No.:	GCS002-SPLP	
Matrix (so	il/water): WA	TER		Lab	Sample ID:	534800		
Level (low	/med): LOW			Dat	e Received:	07/18/03		

% Solids: 0.0

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CAS No.	Analyte	Concentration	C	Ω	М
7429-90-5	Aluminum	737	1		P
7440-36-0	Antimony	5.7	В		P
7440-38-2	Arsenic	2.4	טן		P
7440-39-3	Barium	7.9	B		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	Įυ		P
7440-70-2	Calcium	453	В		P
7440-47-3	Chromium	1.3	В		P
7440-48-4	Cobalt	1.8	ប		P
7440-50-8	Copper	6.3	В		P
7439-89-6	Iron	427	1		P
7439-92-1	Lead	19.2			P
7439-95-4	Magnesium	293	שן		P
7439-96-5	Manganese	12.3	В		P
7439-97-6	Mercury	11.2	В		cv
7440-02-0	Nickel	2.0	ען		P
7440-09-7	Potassium	1080	В		P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	1.2	В		P
7440-23-5	Sodium	1300	В		P
7440-28-0	Thallium	2.8	ש		P
7440-62-2	Vanadium	2.2	טן		P
7440-66-6	Zinc	13.7	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
<u>-</u>				

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	26000.0	25810.00	99.3	30200.0	31060.00	102.8	30110.00	99.7	Р
Antimony	250.0	242.00	96.8	300.0	306.70	102.2	298.40	99.5	Р
Arsenic	250.0	243.70	97.5	100.0	103.00	103.0	97.80	97.8	Р
Barium	500.0	495.80	99.2	200.0	207.50	103.8	201.30	100.6	Р
Beryllium	500.0	502.10	100.4	100.0	102.20	102.2	100.40	100.4	P
Cadmium	500.0	491.20	98.2	100.0	100.80	100.8	98.51	98.5	Р
Calcium	25000.0	25380.00	101.5	30200.0	31100.00	103.0	30330.00	100.4	Р
Chromium	500.0	498.20	99.6	200.0	201.50	100.8	197.90	99.0	P
Cobalt	500.0	490.30	98.1	200.0	204.20	102.1	197.80	98.9	Р
Copper	500.0	503.70	100.7	200.0	211.30	105.6	205.30	102.6	Р
Lead	1000.0	977.30	97.7	400.0	396.90	99.2	387.90	97.0	Р
Manganese	500.0	493.20	98.6	200.0	204.00	102.0	198.90	99.4	P
Mercury	3.0	2.78	92.7	5.0	4.72	94.4	4.57	91.4	cv
Nickel	500.0	496.50	99.3	200.0	203.90	102.0	198.70	99.4	P
Potassium	25000.0	26620.00	106.5	30200.0	32600.00	107.9	31630.00	104.7	P
Selenium	250.0	240.50	96.2	100.0	104.70	104.7	102.30	102.3	P
Silver	500.0	497.10	99.4	100.0	104.10	104.1	101.60	101.6	₽
Sodium	25000.0	24260.00	97.0	30200.0	30470.00	100.9	29520.00	97.7	P
Thallium	250.0	234.70	93.9	100.0	96.56	96.6	98.34	98.3	P
Vanadium	500.0	493.70	98.7	200.0	202.40	101.2	197.00	98.5	P
Zinc	500.0	494.00	98.8	200.0	203.30	101.6	200.70	100.4	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name:	STL BURLINGT	ON		_Contract: 23046	
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002-SPLP

Initial Calibration Source: <u>Inorganic Ventures/Fisher</u>

Continuing Calibration Source: SPEX/Fisher

	Initial C	alibratio	on		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum				30200.0	30670.00	101.6	30630.00	101.4	P
Antimony				300.0		101.1		101.7	_
Arsenic				100.0	101.40				-
Barium				200.0	204.40			102.6	
Beryllium				100.0	103.30			103.0	_
Cadmium				100.0	101.70	101.7		101.2	•
Calcium				30200.0	31320.00		31290.00		
Chromium				200.0	203.00				
Cobalt			1	200.0	203.60				
Copper				200.0	208.40				
Lead	<u> </u>	1		400.0	399.30		398.70		-
Manganese			Ī	200.0	204.40		204.30		
Mercury			1	5.0	4.68	93.6			CV
Nickel				200.0	204.40		205.40	102.7	
Potassium				30200.0	31850.00		31910.00		_
Selenium				100.0	103.80		103.90		
Silver				100.0	103.00		103.40		
Sodium				30200.0	29880.00		29880.00		P
Thallium		i		100.0	100.20		99.88	99.9	P
Vanadium			l	200.0	202.10		201.60	100.8	
Zinc			i	200.0		103.8	206.30		

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Calibration			Continuing Calibration					T
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum				30200.0	30970.00	102.5		Ī	P
Antimony				300.0	309.30	103.1			P
Arsenic				100.0	101.30	101.3			P
Barium				200.0	206.80	103.4			P
Beryllium				100.0	103.60	103.6			P
Cadmium				100.0	102.60	102.6			P
Calcium				30200.0	31570.00	104.5			P
Chromium				200.0	204.00	102.0			Р
Cobalt				200.0	204.90	102.4		1	P
Copper				200.0	211.50	105.8			P
Lead				400.0	398.00	99.5		i	P
Manganese				200.0	205.30	102.6		Ī	P
Nickel				200.0	206.70	103.4			P
Potassium				30200.0	32050.00	106.1		Ī	P
Selenium				100.0	102.50	102.5			Р
Silver				100.0	103.80	103.8		l	P
Sodium				30200.0	30040.00	99.5		Ì	P
Thallium				100.0	102.10	102.1		1	P
Vanadium				200.0	204.00	102.0		1	P
Zinc				200.0	207.60	103.8			P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Iron	25500.0	26200.00 102.7	30200.0	30130.00	99.8	30260.00	100.2	P
Magnesium	25000.0	25430.00 101.7	30200.0	29900.00	99.0	30060.00	99.5	P
Mercury	3.0	2.94 98.0	5.0	4.96	99.2	4.88	97.6	cv

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLINGTO	N		Co	ntract: <u>23046</u>		
Lab	Code:	STLVT	Case	No.:	23046	SAS No.:	SDG No.:	GCS002-SPLP
Ini	tial Ca	libration Sou	rce:	Inorga	nic Venture	s/Fisher		

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м	
Iron	i		30200.0	30400.00	100.7	30490.0	0 101.0	P	
Magnesium			30200.0	30210.00	100.0	30310.0	0 100.4	P	
Mercury			5.0	4.87	97.4	4.6	5 93.0	cv	

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLINGTO	ON		_Contract: <u>23046</u>	
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002-SPLP
Ini	tial Ca	libration Sou	rce: <u>Inorg</u>	anic Vent	ures/Fisher	
Con	tinuing	Calibration	Source: SF	EX/Fisher		

Concentration Units: ug/L

	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м	
Iron			30200.0	30410.00	100.7			P	
Magnesium			30200.0	30160.00	99.9			P	

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibratio	on		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum	26000.0	25380.00	97.6	30200.0	29750.00	98.5	29710.00	98.4	P
Antimony	250.0	251.70	100.7	300.0	304.60	101.5	305.70	101.9	P
Arsenic	250.0	243.50	97.4	100.0	100.60	100.6	102.50	102.5	Р
Barium	500.0	490.00	98.0	200.0	199.10	99.6	199.10	99.6	P
Beryllium	500.0	502.20	100.4	100.0	100.00	100.0	100.90	100.9	P
Cadmium	500.0	488.40	97.7	100.0	97.70	97.7	98.65	98.6	P
Calcium	25000.0	24700.00	98.8	30200.0	30050.00	99.5	30230.00	100.1	P
Chromium	500.0	496.40	99.3	200.0	196.70	98.4	198.70	99.4	Р
Cobalt	500.0	488.10	97.6	200.0	197.30	98.6	198.70	99.4	Р
Copper	500.0	501.10	100.2	200.0	203.00	101.5	202.40	101.2	Р
Iron	25500.0	25560.00	100.2	30200.0	29940.00	99.1	30240.00	100.1	P
Magnesium	25000.0	24850.00	99.4	30200.0	29840.00	98.8	30260.00	100.2	P
Manganese	500.0	488.60	97.7	200.0	197.20	98.6	198.70	99.4	P
Nickel	500.0	493.70	98.7	200.0	196.40	98.2	197.40	98.7	₽
Potassium	25000.0	26940.00	107.8	30200.0	31330.00	103.7	31430.00	104.1	P
Selenium	250.0	243.50	97.4	100.0	102.50	102.5	97.77	97.8	P
Silver	500.0	494.00	98.8	100.0	99.92	99.9	98.99	99.0	Р
Sodium	25000.0	24260.00	97.0	30200.0	29150.00	96.5	28700.00	95.0	P
Thallium	250.0	237.90	95.2	100.0	98.50	98.5	98.88	98.9	P
Vanadium	500.0	491.00	98.2	200.0	196.90	98.4	199.10	99.6	P
Zinc	500.0	494.40	98.9	200.0	197.70	98.8	198.80	99.4	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Ca	alibrati	on	30200.0 29550.00 97.8 29570.00 97.9 300.0 302.40 100.8 302.20 100.7					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	· I			30200.0	29550.00	97.8	29570.00	97.9	Р
Antimony				300.0	302.40	100.8	302.20	100.7	P
Arsenic				100.0	100.30	100.3	100.50	100.5	₽
Barium				200.0	197.40	98.7	195.60	97.8	P
Beryllium				100.0	100.40	100.4	101.00	101.0	P
Cadmium				100.0	98.10	98.1	99.82	99.8	Р
Calcium				30200.0	30180.00	99.9	30650.00	101.5	P
Chromium				200.0	198.50	99.2	201.20	100.6	P
Cobalt				200.0	199.00	99.5	202.20	101.1	Р
Copper				200.0	200.00	100.0	197.80	98.9	P
Iron				30200.0	30140.00	99.8	30520.00	101.1	Р
Magnesium				30200.0	30270.00	100.2	31090.00	102.9	₽
Manganese				200.0	197.90	99.0	199.70	99.8	Р
Nickel				200.0	196.20	98.1	201.00	100.5	P
Potassium				30200.0	31400.00	104.0	31780.00	105.2	₽
Selenium			1	100.0	96.98	97.0	95.00	95.0	P
Silver				100.0	97.84	97.8	98.27	98.3	P
Sodium		· ·		30200.0	28710.00	95.1	29190.00	96.7	P
Thallium				100.0	99.05	99.0	101.80	101.8	P
Vanadium				200.0	198.60	99.3	201.10	100.6	P
Zinc				200.0	197.10	98.6	196.80	98.4	₽

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial Ca	alibrati	on		Continuing	Calibra	ation		Τ
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	İ			30200.0	29500.00	97.7			P
Antimony				300.0	302.00	100.7		Ì	P
Arsenic				100.0	100.60	100.6		İ	Р
Barium				200.0	194.90	97.4			P
Beryllium				100.0	. 100.60	100.6			P
Cadmium				100.0	99.85	99.8			P
Calcium				30200.0	30630.00	101.4			P
Chromium				200.0	201.40	100.7			P
Cobalt	1			200.0	202.00	101.0			P
Copper				200.0	199.70	99.8		j	P
Iron	1			30200.0	30410.00	100.7			₽
Magnesium	1			30200.0	30920.00	102.4		1	Р
Manganese				200.0	198.40	99.2		1	P
Nickel	1			200.0	201.40	100.7		i	P
Potassium				30200.0	31400.00	104.0		ì	P
Selenium	_1			100.0	97.99	98.0		1	P
Silver				100.0	101.20	101.2			P
Sodium				30200.0	29140.00	96.5		i -	P
Thallium				100.0	102.80	102.8		i	P
Vanadium				200.0	201.00	100.5			P
Zinc	1			200.0	196.80			1	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: 23046 Lab Name: STL BURLINGTON

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

		Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М	
Lead	1000.0	998.00 99.8	400.0	394.50	98.6	394.10	0 98.5	P	

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial	. Calibration	Continuing Calibration							
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м		
Lead			400.0	388.50	97.1	388.1	0 97.0	P		

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				Init	CRDL Star	ndard	for ICP Fina	1
Analyte	True	Found	·· %R	True	Found	%R	Found	%R
Aluminum				400.0	678.70	169.7	766.40	191.6
Antimony				120.0	118.00	98.3	117.30	97.8
Arsenic				20.0	19.22	96.1	20.67	103.4
Barium				400.0	387.90	97.0	397.00	99.2
Beryllium				10.0	10.21	102.1	10.50	105.0
Cadmium				10.0	10.47	104.7	10.57	105.7
Calcium				10000.0	10570.00	105.7	11010.00	110.1
Chromium				20.0	21.46	107.3	22.34	111.7
Cobalt				100.0	95.84	95.8	97.76	97.8
Copper				50.0	49.27	98.5	51.33	102.7
Lead				6.0	5.16	86.0	4.87	81.2
Manganese				30.0	29.37	97.9	30.22	100.7
Mercury	0.2	0.30	150.0					
Nickel				80.0	78.54	98.2	81.44	101.8
Potassium				10000.0	11610.00	116.1	11720.00	117.2
Selenium		Ī		10.0	10.88	108.8	10.67	106.7
Silver				20.0	19.80	99.0	19.81	99.0
Sodium	ĺ			10000.0	9563.00	95.6	9670.00	96.7
Thallium		1		20.0	19.29	96.4	16.49	82.4
Vanadium				100.0	97.66	97.7	99.26	99.3
Zinc				40.0	39.99	100.0	41.74	104.4

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCS002-SPLP</u>

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

	CRDL Standard					ard for ICP	al
Analyte	True	Found	%R ·	True	Found 9	R Found	%R
Iron		1		200.0	300.70 15	0.4 267.2	133.6
Magnesium				10000.0		3.4 10320.0	
Mercury	0.2	0.20	100.0	İ	İ	<u> </u>	İ

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCS002-SPLP</u>

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

					Init	CRDL Star	ndard	for ICP Fina	1
Analyte	True	Found	%R		True · ·	Found	₹R	Found	%R
Aluminum					400.0	562.40	140.6	603.50	150.9
Antimony				П	120.0	123.20	102.7	124.10	103.4
Arsenic				П	20.0	21.31	106.6	24.06	120.3
Barium				\Box	400.0	392.20	98.0	387.60	96.9
Beryllium					10.0	10.36	103.6	10.62	106.2
Cadmium				П	10.0	10.16	101.6	10.43	104.3
Calcium				П	10000.0	10360.00	103.6	10640.00	106.4
Chromium				\Box	20.0	20.76	103.8	22.36	111.8
Cobalt				П	100.0	97.18	97.2	99.30	99.3
Copper				П	50.0	50.95	101.9	49.33	98.7
Iron		, , , , , , , , , , , , , , , , , , , ,		П	200.0	280.80	140.4	324.70	162.4
Magnesium					10000.0	10210.00	102.1	10610.00	106.1
Manganese				П	30.0	29.70	99.0	30.11	100.4
Nickel				П	80.0	79.42	99.3	82.68	103.4
Potassium	İ			\Box	10000.0	11110.00	111.1	11380.00	113.8
Selenium				П	10.0	13.44	134.4	7.03	70.3
Silver	İ			П	20.0	19.68	98.4	19.18	95.9
Sodium				П	10000.0	9707.00	97.1	9879.00	98.8
Thallium					20.0	20.21	101.0	19.99	100.0
Vanadium				П	100.0	99.17	99.2	98.34	98.3
Zinc					40.0	38.31	95.8	38.50	96.2

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				\Box	C	RDL Standard f	or ICP	
					Initia	al	Fina	1
Analyte	True	Found	%R		True	Found %R	Found	%R
Lead				TÌ.	6.0	6.24 104.0	7.14	119.0

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			C	ontinuing Co Blank (u				Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	Method Blanks	М
Aluminum	18.3	U	18.3	ן ט	18.3	ַ	18.3	U	20.700 B	P
Antimony	3.8	U	3.8	ŭ	3.8	U	3.8	U	4.069 B	P
Arsenic	2.4	U	2.4	ַט	2.4	ט	2.4	U	2.400 U	P
Barium	7.3	Ū	7.3	U	7.3	ט	7.3	บ	7.300 U	P
Beryllium	0.4	В	0.2	ט	0.2	ט	0.3	В	-0.688 B	P
Cadmium	0.3	ט	0.3	U	0.3	В	0.3	В	0.300 U	P
Calcium	223.2	U	223.2	Ū	223.2	U	223.2	บ	223.200 U	P
Chromium	0.6	U	0.6	ן ט	0.6	ע	0.6	U	0.600 U	P
Cobalt	1.8	U	1.8	ַ	1.8	ַ	1.8	U	1.800 U	P
Copper	1.4	Ū	1.4	U	1.4	В	1.8	В	1.646 B	P
Iron									66.700 U	P
Lead	1.5	U	1.5	ע	1.5	U	1.5	ט	1.500 ^U	P
Magnesium									292.800 U	P
Manganese	0.7	U	0.7	ַ	0.7	ט	0.7	U	0.700 U	P
Mercury	0.1	ŭ	0.1	U	0.1	ט	0.1	Ū	0.150 B	CV
Nickel	2.0	Ū	2.0	ַ	2.0	Ū	2.0	U	2.000 U	P
Potassium	250.0	U	250.0	U	250.0	U	250.0	U	250.000 U	P
Selenium	1.7	U	2.6	В	1.7	Ū	2.6	В	1.700 U	P
Silver	0.9	U	0.9	ַ	0.9	U	0.9	บ	0.900 U	P
Sodium	218.8	U	218.8	U	218.8	Ū	218.8	U	218.800 U	P
Thallium	2.8	Ū	2.8	ַ	2.8	Ū	2.8	U	-3.000 B	P
Vanadium	2.2	U	2.2	ן ט	2.2	Ū	2.2	U	2.200 ^U	P
Zinc	5.7	U	5.7	U	5.7	U	5.7	U	5.700 U	P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank (ug/L)	С	1	C	ontinuing Ca Blank (ug		С	Preparation Blank Wethod Blank	м
Aluminum	<u> </u>	1	18.3	ן ט ן	18.3		 T	18.300 U	P
Antimony	Ì		3.8		3.8	ט	İ	3.800 U	P
Arsenic			2.4	ט	2.4	U		2.400 U	P
Barium			7.3	Ū	7.3	ט		7.300 U	P
Beryllium			0.2	ַ	0.2	U		0.200 U	P
Cadmium			0.3	Ū	0.3	ַ		0.300 U	P
Calcium			223.2	ַ	223.2	ַט		223.200 U	P
Chromium			0.6	ט	0.6	ַט		1.199 B	P
Cobalt			1.8	U	1.8	U		1.800 U	P
Copper			1.4	U	1.4	U		1.686 B	P
Lead			1.5	U	-1.9	В		1.504 B	P
Manganese			0.7	U	0.7	U		0.700 U	P
Nickel			2.0	ַ	2.0	Ū		2.000 ប	P
Potassium			250.0	ט	250.0	U		250.000 U	P
Selenium			3.0	В	1.9	В		1.700 U	P
Silver			0.9	<u>ע</u>	0.9	U		0.900 U	P
Sodium			218.8	ַ ט	218.8	U		218.800 U	P
Thallium			2.8	ע	2.8	U		2.800 U	P
Vanadium			2.2	ן ש	2.2	U		2.200 U	P
Zinc			5.7	ט	5.7	U		9.452 B	P

3 **BLANKS**

Lab Name: STL BURLINGTON ____ Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: SDG No.: GCS002-SPLP

Preparation Blank Matrix (soil/water): WATER

n-luke	Initial Calib. Blank			Con	tinuing Blank	Calibr (ug/L)			Preparation Blank		
Analyte	(ug/L)	С	1	С	2	C	3	С	EBIKP8	С	М
Aluminum	•								18.300	U	P
Antimony									3.800	U	P
Arsenic									2.400	Ŭ	P
Barium							-		7.300	U	P
Beryllium									-0.393	В	P
Cadmium									0.300	Ū	P
Calcium]	426.400	В	P
Chromium									0.863	В	P
Cobalt									1.800	υ	P
Copper						İ		Ī	2.916	В	P
Iron									66.700	U	P
Lead				11					1.500	U	P
Magnesium				1 1					292.800	U	P
Manganese									0.700	U	P
Mercury				11					10.000	U	CV
Nickel				1 1		i i -			2.000	U	P
Potassium						<u>İ</u>	•		250.000	U	P
Selenium						ĺ			3.755	В	P
Silver						İ			0.900	U	P
Sodium									5927.000		P
Thallium									2.800	U	P
Vanadium				İ					2.200	U	P
Zinc									5.700	U	P

3 DI ANIZO

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	tinuing Blank (ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	Method Blanks	М
Iron	66	. 7 U	66.	7 0	66.	7 טן	66.7	U	66.700 U	P
Magnesium	292	. 8 U	292.	8 U	292.	8 U	292.8	U	292.800 U	P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCS002-SPLP

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	ntinuing C Blank (u		ration		Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Iron			66.7	וטן	66.7	ט					P
Magnesium			292.8	ט	292.8	U		l			P
Mercury	0.	1 U	0.1	ט	0.1	ע	-0.2	В	0.100	U	CV

3 BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			C	ontinuing Blank		ation		Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С	EBLK N9	С	М
Aluminum									70.500	В	P
Antimony					·				4.700	U	P
Arsenic		$\top \top$							4.800	U	P
Barium									16.060	В	P
Beryllium		T							0.200	U	P
Cadmium									0.600	U	P
Calcium									752.900	В	P
Chromium									1.400	U	P
Cobalt				Ī					2.000	U	P
Copper				П					5.834	В	P
Iron				\Box		i i			33.300	Ū	P
Lead		11				1 1			39.990		P
Magnesium									226.600	В	P
Manganese						i i			0.704	В	P
Mercury			0.1	U					10.000	U	CV
Nickel									2.100	U	P
Potassium									393.000	U	P
Selenium									3.400	U	P
Silver		11							2.200	U	P
Sodium		11				ii			5031.000		P
Thallium		Ti				İ			5.700	Ū	P
Vanadium				Π		T I			2.000	Ū	P
Zinc									22.690		P

3 DI ANIZO

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank (ug/L)	С	1	C	ontinuing Ca Blank (ug			С	Preparation	С	м
Aluminum	23.6	U	23.6	ן ט	23.6	U	-43.7	В			P
Antimony	4.7	U	4.7	ן ט	4.7	U	4.7	U			P
Arsenic	4.8	Ū	4.8	Ū	4.8	Ū	4.8	U			P
Barium	5.9	Ū	5.9	ַ	5.9	U	5.9	U			P
Beryllium	0.2	บ	0.2	U	0.2	U	0.2	Ū			P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U			P
Calcium	182.1	U	182.1	U	182.1	U	182.1	ט			P
Chromium	1.4	U	1.4	U	1.4	ַ	-1.5	В			P
Cobalt	2.0	U	2.0	ַט	2.0	U	2.0	Ū			P
Copper	2.4	Ū	2.4	ע	2.4	ַ	-3.0	В			P
Iron	71.7	В	33.3	U	33.3	U	-38.4	В			P
Magnesium	178.3	υ	178.3	ט	178.3	U	178.3	Ū			P
Manganese	0.7	U	0.7	ַ	0.7	U	0.7	Ū			P
Nickel	2.1	U	2.1	ן ט	2.1	U	2.1	บ			P
Potassium	393.0	Ū	393.0	ן ט	393.0	U	393.0	U			P
Selenium	3.4	Ū	3.4	ן ט	3.4	U	3.4	ับ			P
Silver	2.2		2.2	ַ	2.2	ט	-3.6	В			P
Sodium	472.7	U	472.7	ן ט	472.7	U	-606.8	В			P
Thallium	5.7	U	5.7	ַ	5.7	Ū	5.7	U			P
Vanadium	2.0	ט	2.0	U	2.0	U	-2.4	В			₽
Zinc	-1.8	В	-2.2	В	-2.3	В	-2.6	В			P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

_	Initial Calib. Blank			Co	ontinuing Ca Blank (ug				Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum			-36.3	В	-38.0	В					P
Antimony			4.7	ַ	4.7	U					P
Arsenic .			4.8	U	4.8	ט					P
Barium	1.		5.9	ן ט	5.9	ט					P
Beryllium			0.2	В	0.3	В					P
Cadmium			0.6	U	0.6	ט					P
Calcium			182.1	ן ט	182.1	ע					P
Chromium			1.4	U	1.4	ע					P
Cobalt			2.0	U	2.0	יט					P
Copper			2.4	U	2.4	ַ					P
Iron			33.3	ַ ע	33.3	ע					P
Magnesium			178.3	ן ט	178.3	ַ					P
Manganese			0.7	ן ט	0.7	ַ					P
Nickel			2.1	ַ ט	2.1	Ū		ļ			P
Potassium			472.4	В	429.2	В					P
Selenium		Î	3.4	ן ט	3.4	U					P
Silver			2.2	ַ ט	2.2	Ū					P
Sodium			479.6		472.7	U					P
Thallium		i i	5.7		5.7	U					P
Vanadium		i	2.0	ן ט	2.0	U					P
Zinc			-2.2		-2.3	В					P

3 1 ANIZE

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCS002-SPLP</u>

Preparation Blank Matrix (soil/water): WATER

_	Initial Calib. Blank			Con	tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Lead	1.	9 B	1.	.5 U	1	. 5 ซ	1.	5 บ		P

3

BLANKS

Lab Name: <u>STL BUR</u>	LINGTON	Contract: 23046			
Lab Code: <u>STLVT</u>	Case No.: 23046	SAS No.:	SDG No.:	GCS002-SPLP	
Preparation Blank	Matrix (soil/water): WATE	CR			
Preparation Blank	Concentration Units (ug/I	or mg/kg): UG/L			
	Tnitial			_	_

	Initial Calib. Blank				tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	C	М
Lead		T	1.	5 U		11				P

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCS002-SPLP</u>

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

	True	9	Init	tial Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB %R		Sol.A	Sol.AB	%R	
Aluminum	500000	452460	477800	467400.0	103.3	471600	481600.0	106.4	
Antimony	0	572	3	622.1	108.8	5	640.4	112.0	
Arsenic	0	94	1	101.0	107.4	-1	103.9	110.5	
Barium	0	466	. 2	506.8	108.8	2	522.9	112.2	
Beryllium	0	446	· -1	484.3	108.6	-1	501.9	112.5	
Cadmium	0	874	8	955.3	109.3	8	986.0	112.8	
Calcium	500000	421280	481200	468100.0	111.1	474000	484200.0	114.9	
Chromium	0	436	5	478.4	109.7	4	491.6	112.8	
Cobalt	0	435	9	472.8	108.7	8	484.6	111.4	
Copper	0	473	4	530.9	112.2	4	545.0	115.2	
Lead	0	44	-4	43.8	99.5	-2	45.4	103.2	
Manganese	0	428	0	472.3	110.4	0	486.6	113.7	
Nickel	0	877	12	965.9	110.1	11	995.8	113.5	
Potassium	0	0	349	218.0		228	276.7		
Selenium	0	48	-1	50.7	105.6	4	54.7	114.0	
Silver	0	196	1	218.4	111.4	0	222.6	113.6	
Sodium	0	0	-37	-250.1		-80	-380.2		
Thallium	0	95	5	100.9	106.2	3	104.3	109.8	
Vanadium	0	417	-2	458.3	109.9	-3	471.1	113.0	
Zinc	0	841	9	966.6	114.9	9	1002.0	119.1	

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046 Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP ICS Source: Inorganic Ventures ICP ID Number: TJA ICAP 5

	True	•	Init	tial Found	Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.A	3 %R	Sol.A	Sol.AB	%R
Iron	200000	179960	198200	196000.0	108.9	199400	195300.0	108.5
Magnesium	500000	480220	516400	516700.0	107.6	519100	515700.0	107.4

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

	Tru	е	Init	ial Found	Final Found							
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB %R		Sol.A	Sol.AE	8 8R				
Aluminum	500000	477680	501800	499900.0	104.7	500700	504200.0	105.6				
Antimony	0	575	0	611.8	106.4	1	616.7	107.3				
Arsenic	0	97	3	97.0	100.0	4	103.3	106.5				
Barium	0	464	2	496.0	106.9	2	495.4	106.8				
Beryllium	0	444	0	478.8	107.8	0	489.6	110.3				
Cadmium	0	874	-3	927.9	106.2	-2	957.4	109.5				
Calcium	500000	476380	498900	502800.0	105.5	511900	521100.0	109.4				
Chromium	0	451	3	480.1	106.5	4	493.1	109.3				
Cobalt	0	434	-1	455.5	105.0	0	468.2	107.9				
Copper	0	482	4	507.0	105.2	5	504.3	104.6				
Iron	200000	192500	201900	198200.0	103.0	205700	204000.0	106.0				
Magnesium	500000	524140	532400	535100.0	102.1	550100	557000.0	106.3				
Manganese	0	451	1	479.0	106.2	2	489.0	108.4				
Nickel	0	876	0	920.0	105.0	1	946.1	108.0				
Potassium	0	0	-162	-198.6		204	119.1					
Selenium	0	41	-10	37.2	90.7	-15	34.1	83.2				
Silver	0	198	0	209.6	105.9	0	210.5	106.3				
Sodium	0	0	-253	-378.0		-216	-377.5					
Thallium		83	-2	90.7	109.3	-1	87.8	105.8				
Vanadium	0	464	5	499.0	107.5	5	507.2	109.3				
Zinc	0	951	-2	987.2	103.8	-3	1000.0	105.2				

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046 Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures Concentration Units: ug/L

	True		Initia	1 Found	Final Found		
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB %R	Sol.A	Sol.AB	%R
Lead	0	44	1	46.5 105.7	-2	44.0	100.0

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

MAGNWPSUS143.0SPLPS

Lab	Name:	STL BURLING	GTON		Contract	: 23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCS002-SPLP

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	%R	Q	м
Arsenic	75 - 125	981.8000		2.4000	U	1000.00	98.2	1	P
Barium	75 - 125	2099.0000		29.9300	В	2000.00	103.5		P
Cadmium	75 - 125	51.5900		2.5100	В	50.00	98.2		P
Chromium	75 - 125	201.1000		0.6000	ט	200.00	100.6		P
Copper	75 - 125	270.2000		3.2310	В	250.00	106.8		P
Lead	75 - 125	492.7000		1.5000	υ	500.00	98.5		P
Mercury	75 - 125	101.0000		10.0000	[ט	100.00	101.0	Ì	cv
Nickel	75 - 125	526.5000		29.8500	В	500.00	99.3		P
Selenium	75 - 125	1993.0000		4.6650	В	2000.00	99.4		P
Silver	75 - 125	526.2000		0.9000	ש	500.00	105.2		P
Zinc	75 - 125	502.0000		5.7000	บ	500.00	100.4		P

Comments:		

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

MAGNWPSUS14(3.0)SPLPA

Lab Name: _	STL BURLING	GTON	Contra	act: 23046			
Lab Code:	STLVT	Case No.: 23046	SAS	· · · · · · · · · · · · · · · · · · ·	SDG No.:	GCS002-SPLP	
Matrix (soi	il/water):	WATER		Level (low/r	med): LOW		

Analyte	Control Limit %R	Spiked Sample Result (SSR)	·C	Sample Result (SR)	С	Spike Added(SA)	%R	Q	м
Aluminum		2204.00		18.30	บ	2000.0	110.2		P
Antimony		528.20		5.26	В	500.0	104.6		P
Arsenic		37.13		2.40	ט	40.0	92.8		P
Barium		2111.00		29.93	В	2000.0	104.1		Р
Beryllium		51.65		0.20	U	50.0	103.3		P
Cadmium		53.52		2.51	В	50.0	102.0		P
Chromium		209.40		0.60	υ	200.0	104.7		P
Cobalt		508.50		3.01	В	500.0	101.1		₽
Copper		278.30		3.23	В	250.0	110.0		P
Iron		1149.00		66.70	U	1000.0	114.9		P
Lead		20.80		1.50	Ū	20.0	104.0		P
Manganese		6126.00		5739.00		500.0	77.4		P
Nickel		541.10		29.85	В	500.0	102.2		P
Selenium		14.02		4.66	В	10.0	93.6		P
Silver		55.23		0.90	U	50.0	110.5		P
Thallium		55.16		4.75	В	50.0	100.8		P
Vanadium		526.00		2.20	U	500.0	105.2		P
Zinc		522.30		5.70	บ	500.0	104.5		P

Comments:				
_				

6

DUPLICATES

SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Duplicate: 0.0

Analyte	Control							
Analy ce	Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М
Aluminum		18.3000	ט	18.3000	U			P
Antimony		5.2650	В	4.2270	В	21.9		P
Arsenic		2.4000	Ū	2.4000	Ū			Þ
Barium		29.9300	В	30.4500	В	1.7		P
Beryllium		0.2000	U	0.2000	U			P
Cadmium		2.5100	В	2.1760	В	14.3		P
Calcium		358800.0000		359800.0000		0.3		P
Chromium		0.6000	U	0.6000	U			P
Cobalt		3.0110	В	2.8280	В	6.3	Ì	P
Copper		3.2310	В	4.3470	В	29.5		P
Iron		66.7000	U	66.7000	Ū			P
Lead		1.5000	U	1.5000	Ū			P
Magnesium		31170.0000		31740.0000		1.8		P
Manganese	·	5739.0000		5781.0000		0.7		P
Mercury		10.0000	บ	10.2000	В	200.0		CV
Nickel		29.8500	В	30.4000	В	1.8		P
Potassium		3034.0000	В	3063.0000	В	1.0		P
Selenium	5.0	4.6650	В	6.0690		26.2		P
Silver		0.9000	U	0.9000	υ			P
Sodium	5000.0	6328.0000		6387.0000		0.9		₽
Thallium		4.7480	В	3.2260	В	38.2		₽
Vanadium		2.2000	ט	2.2000	ט			P
Zinc		5.7000	Ū	5.7000	บ			P

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	С	Limits	%R
Aluminum	51000.0	52480.00	102.9		1			
Antimony	2000.0	2033.00	101.6			I		
Arsenic	1050.0	1043.00	99.3					
Barium	500.0	511.90	102.4					
Beryllium	500.0	501.80	100.4			Π		
Cadmium	525.0	514.70	98.0					
Calcium	50000.0	50880.00	101.8					
Chromium	500.0	501.70	100.3					
Cobalt	500.0	492.50	98.5			Π		
Copper	500.0	530.90	106.2					
Iron	50500.0	52920.00	104.8			П		
Lead	1015.0	981.80	96.7					
Magnesium	50000.0	51860.00	103.7			Π		
Manganese	500.0	498.20	99.6		1	Π		
Mercury	1.0	0.94	94.0			Π		
Nickel	500.0	495.00	99.0			Π		
Potassium	50000.0	51510.00	103.0			П		
Selenium	525.0	507.90	96.7					
Silver	500.0	456.30	91.3			Π		
Sodium	50000.0	51930.00	103.9					
Thallium	550.0	521.70	94.9			Π		
Vanadium	500.0	499.40	99.9			Π	1	
Zinc	500.0	494.30	98.9					

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTON	Contract:	23046

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

	Aqueous (ug/L)			Solid (mg/kg)							
Analyte	True	Found	%R	True	Found C	Limits	%R				
Aluminum	51000.0	50370.00	98.8		1						
Antimony	2000.0	1943.00	97.2		l						
Arsenic	1050.0	991.50	94.4		1						
Barium	500.0	490.80	98.2								
Beryllium	500.0	483.90	96.8	·							
Cadmium	525.0	494.90	94.3								
Calcium	50000.0	49060.00	98.1								
Chromium	500.0	482.90	96.6								
Cobalt	500.0	472.10	94.4								
Copper	500.0	506.90	101.4								
Lead	1015.0	942.00	92.8								
Manganese	500.0	479.20	95.8								
Nickel	500.0	478.10	95.6								
Potassium	50000.0	49430.00	98.9								
Selenium	525.0	483.30	92.1		1						
Silver	500.0	410.60	82.1								
Sodium	50000.0	49550.00	99.1		I						
Thallium	550.0	499.30	90.8								
Vanadium	500.0	480.70	96.1								
Zinc	500.0	478.60	95.7								

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON			Contract:	23046				
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCS002-SPLP				

Solid LCS Source:

Aqueous LCS Source: <u>Inorqanic Ventures</u>

		Aqueou	ıs (ug/L)	Solid (mg/kg)						
Analyte		True	Found	₽R	True	Found	С	Limits	%R	
Iron	T	50500.0	50680.00	100.4	1		Ī			
Magnesium		50000.0	49710.00	99.4			Π			
Mercury	1	1.0	0.92	92.0			ĺ			

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	М		Contract:	23046	
Lab	Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.: GCS002-SPLP

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

	Aqueo	ıs (ug/L)			Solid	l (11	ng/kg)	
Analyte	True	Found	%R	True	Found	С	Limits	%R
Aluminum	51000.0	51180.00	100.4					
Antimony	2000.0	1985.00	99.2					
Arsenic	1050.0	1017.00	96.9					
Barium	500.0	498.00	99.6					
Beryllium	500.0	495.70	99.1					
Cadmium	525.0	508.60	96.9					
Calcium	50000.0	50400.00	100.8					
Chromium	500.0	494.80	99.0]				<u> </u>
Cobalt	500.0	484.30	96.9					
Copper	500.0	514.90	103.0				, , , , , , , , , , , , , , , , , , ,	
Lead	1015.0	961.70	94.7	[
Manganese	500.0	490.60	98.1					
Nickel	500.0	489.60	97.9					
Potassium	50000.0	49870.00	99.7					
Selenium	525.0	494.20	94.1					
Silver	500.0	419.40	83.9					
Sodium	50000.0	50310.00	100.6					
Thallium	550.0	513.60	93.4					
Vanadium	500.0	491.30	98.3					
Zinc	500.0	494.30	98.9			IT		

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGT	ON		Contract:	23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCS002-SPLP

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

		Aqueou	s (ug/L)		Solid (mg/kg)							
Analyte		True	Found	%R	True	Found C	Limits	%R				
Iron	Ī	50500.0	50780.00	100.6								
Magnesium	I	50000.0	49820.00	99.6								

9 ICP SERIAL DILUTIONS

SAMPLE NO.

SHERWPSUS23 (3.5) SPLPL

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Initial Sample Result (I)	O	Serial Dilution Result (S)	С	% Differ- ence	Q	м
736.70	1	663.50	В	9.9		P
5.67	В	19.00	U	100.0	Ì	P
2.40	ט	12.00	Ū		<u> </u>	P
7.91	В	36.50	Ū	100.0	<u> </u>	P
0.20	ט	1.00	Ū			P
0.30	ט	1.50	U	1		P
452.60	В	1116.00	Ū	100.0		P
1.30	В	3.00	Ū	100.0		P
1.80	U	9.00	Ū	1		P
6.26	В	9.91	В	58.3		₽
427.10	İ	397.90	В	6.8		P
19.16	<u> </u>	15.19		20.7		P
292.80	U	1464.00	Ū			P
12.33	В	12.85	В	4.2		P
2.00	ט	10.00	U			P
1084.00	В	1250.00	U	100.0		P
1.70	ן ט	8.50	Ū			₽
1.15	В	4.50	U	100.0		P
1296.00	В	1204.00	В	7.1		P
2.80	י די	14.00	υ			P
2.20	ט	11.00	ַ			P
13.72	В	28.50	ָּט	100.0		P
	Result (I) 736.70 5.67 2.40 7.91 0.20 0.30 452.60 1.30 1.80 6.26 427.10 19.16 292.80 12.33 2.00 1084.00 1.70 1.15 1296.00 2.80 2.20	Result (I) C 736.70 5.67 B 2.40 U 7.91 B 0.20 U 0.30 U 452.60 B 1.30 B 1.80 U 6.26 B 427.10 19.16 292.80 U 12.33 B 2.00 U 1084.00 B 1.70 U 1.15 B 1296.00 B 2.80 U 2.20 U	Result (I)	Result (I)	Initial Sample Result (S)	Initial Sample Result (S)

9 ICP SERIAL DILUTIONS

SAMPLE NO.

MAGNWPSUS14 (3.0) SPLPL

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

	Concentra	atio	n Units: ug/L				_
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	C	% Differ- ence	Q	м
Aluminum	18.30	U	91.50	U		1	P
Antimony	5.26	В	19.00	ַ	100.0	i	P
Arsenic	2.40	ָט	12.00	ט		İ	P
Barium	29.93	В	36.50	Ū	100.0		P
Beryllium	0.20	U	1.00	Ū			P
Cadmium	2.51	В	3.27	В	30.3		P
Calcium	358800.00	İ	378100.00	İ	5.4	1	P
Chromium	0.60	Ū	3.00	Ū			P
Cobalt	3.01	В	9.00	Ū	100.0	<u> </u>	P
Copper	3.23	В	7.00	ָט	100.0		P
Iron	66.70	ט	333.50	ט		i	P
Lead	1.50	[ט	7.50	Ū		i	P
Magnesium	31170.00		32300.00	i	3.6		P
Manganese	5739.00		5800.00		1.1	İ	P
Nickel	29.85	В	32.95	В	10.4	İ	P
Potassium	3034.00	В	2966.00	В	2.2	1	P
Selenium	4.66	В	19.94	В	327.9		P
Silver	0.90	י ט	4.50	ן ט		Ì	₽
Sodium	6328.00	i	6332.00	В	0.1		P
Thallium	4.75	В	14.00	ַ	100.0		P
Vanadium	2.20	ן ט	11.00	ט			P
Zinc	5.70	<u>ט</u>	28.50	Ū			P
Zine	5.70	ا ت	28.50	U			

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	ОИ		Contract: 23046						
Lab Code: STLVT C	ase No.: <u>23</u> 0	046	SAS No.	:	_ SDG	No.	: GCS002-SPLP	_	
ICP ID Number:		·	Date:	07/01/03					
Flame AA ID Number: Le									
Furnace AA ID Number: _									
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м			
	Mercury	253.70		0.2	0.10	CV			
•									

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCS002-SPLP
ICP ID Number: TJA ICAP 4	Date: 07/01/03
Flame AA ID Number:	
Furnace AA ID Number:	

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М
Aluminum	308.215		200	23.6	P
Antimony	206.838		60	4.7	P
Arsenic	189.042		10	4.8	P
Barium	493.409		200	5.9	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.6	P
Calcium	317.933		5000	182.1	P
Chromium	267.716		10	1.4	P
Cobalt	228.616		50	2.0	P
Copper	324.754		25	2.4	P
Iron	271.441		100	33.3	P
Magnesium	279.078		5000	178.3	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.1	P
Potassium	766.491		5000	393.0	P
Selenium	196.026		5	3.4	P
Silver	328.068		10	2.2	P
Sodium	330.232		5000	472.7	P
Thallium	190.864		10	5.7	P
Vanadium	292.402		50	2.0	P
Zinc	213.856		20	1.0	P

Comments:			

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON		Contrac	E: 23046				•
Lab Code: STLVT Cas	e No.: 23046	SAS No.		_ SDG	No.	: GCS002-SPLP	
ICP ID Number: TJA ICAP 5		Date:	07/01/03				
Flame AA ID Number:							
Furnace AA ID Number:							
	Wave-	Back-	CPDI.	TDT.			

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м
Iron	271.441		100	66.7	P
Magnesium	279.079		5000	292.8	P

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCS002-SPLP
ICP ID Number: TJA ICAP 6	Date: 07/01/03
Flame AA ID Number:	
Furnace AA ID Number:	

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М
Aluminum	308.215		200	18.3	P
Antimony	206.838		60	3.8	P
Arsenic	189.042		10	2.4	P
Barium	493.409		200	7.3	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.3	P
Calcium	317.933		5000	223.2	P
Chromium	267.716		10	0.6	P
Cobalt	228.616		50	1.8	P
Copper	324.754		25	1.4	P
Lead	220.353		3	1.5	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.0	P
Potassium	766.491		5000	250.0	P
Selenium	196.026		5	1.7	P
Silver	328.068		10	0.9	P
Sodium	330.232		5000	218.8	P
Thallium	190.864		10	2.8	P
Vanadium	292.402		50	2.2	P
Zinc	206.200		20	5.7	P

Comments:	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

	Wave-	т	nterelement	Correction	Factors for:	
Analyte	length		.ncereremenc	Correction .	ractors for:	
raidiy ce	(nm)	Al	Ca	Fe	Mg	Ba
Aluminum	308.22	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Antimony	206.84	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Arsenic	189.04	0.0000000	0.000000	-0.0000600	0.0000000	0.000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Boron	249.68	0.0000000	0.000000	0.0008950	0.0000000	0.000000
Cadmium	226.50	0.0000000	0.000000	0.0000330	0.0000000	0.000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Lead	220.35	0.0006300	0.000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	-0.0000220	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000,0000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000200	0.000000	-0.0000900	0.0000000	0.0000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.0000490	0.0000000	0.0000000
Zinc	213.86	0.0000250	0.000000	0.0000630	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

	Wave- length		Interelement	Correction 1	Factors for	:
Analyte	(nm)	Со	Cr	Cu	Mn	Мо
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	. 0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0001150	0.0000000	0.0000000	0.0000000	0.0001350
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.1059800	0.000000	0.0000000	0.0000000	0.0036200
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0004300	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007920
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	-0.0160000
Zinc	213.86	0.0000000	0.0000000	0.0003300	0.0000000	0.0000000

Comments:					
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

<u> </u>	Wave-	Interelement Correction Factors for:					
Analyte	length	Ni.	C.F.	9 -	**	77	
	(nm)		Sb	Sn	V	Zn	
Aluminum	308.22	0.0000000		0.1440400	0.0000000	0.000000	
Antimony	206.84	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Barium	493.41	0.000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0006280	0.0000000	
Boron	249.68	0.0000000	0.000000	. 0.0000000	0.0000000	0.0000000	
Cadmium	226.50	0.000000	0.000000	0.0000000	0.0000000	0.0000000	
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Copper	324.75	0.0000000	0.000000	0.0000000	-0.000192	0.0000000	
Iron	271.44	0.0000000	0.000000	0.0000000	0.0237000	0.0000000	
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000	
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Nickel	231.60	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.0000000	
Silicon	288.16	0.0000000	0.000000	-0.1212200	0.0000000	0.0000000	
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.1177000	
Thallium	190.86	0.0000000	0.0000000	0.0000000	0.0025400	0.0000000	
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Zinc	213.86	0.0052400	0.000000	0.0000000	0.0000000	0.0000000	

Comments:		· · · · · · · · · · · · · · · · · · ·	<u> </u>	 	 	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

	Wave- length]	Interelement	Correction	Factors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Ag
Aluminum	308.22	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.000000	0.0000050	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000070	0.000000	0.0000830	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000290	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000060	0.0000000	0.0000000
Iron	271.44	0.0001300	0.000000	0.0000000	-0.000400	0.0000000
Lead	220.35	0.0008600	0.0000000	0.0000920	-0.000008	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	294.92	0.0000000	0.000000	0.0006580	0.0000180	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000260	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.29	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000100	0.000000	-0.0001300	-0.000010	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000090	0.000000	-0.0004350	0.0000000	0.0000000
Titanium	334.94	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	-0.0003250	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.000000	0.0000800	0.0000390	0.0000000

Comments:			 	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

	Wave- length		Interelement	Correction	Factors for	:
Analyte	(nm)	As	В	Be	Cd	Со
Aluminum	308.22·	0.0026340	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0002400	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0,0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000000	0.0000000	0.0000840
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000610
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.0840960
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	-0.0026440
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	294.92	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0022990
Phosphorus	178.29	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0018110
Titanium	334.94	0.0000000	0.0000000	0.0000000	0.0000000	-0.0002200
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.000000	0.0000000	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON	_ Contract: 23046	

	Wave- length	:	Interelement	Correction	Factors for:	
Analyte	(nm)	Cr	Cu	Mn	Na	Ni
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0087280	0.0000000	0.000000	0.0000000	0.0000000
Arsenic	189.04	-0.0088830	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.000000	0.0000000	0.0001070
Calcium	317.93	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.0000530	-0.0000340	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	294.92	-0.0015990	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0004700	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.29	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Silver	328.07	-0.0000990	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0002810	0.000000	0.0000000	0.0000000	0.0000000
Titanium	334.94	0.0002200	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	-0.0020840	0.000000	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.000000	0.0000000	0.0000000	0.0000000

Comments:	 		 	 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

	Wave- length		Interelement	Correction	Factors for:	
Analyte	(nm)	Pb	Sb	Se	Si	Tl
Aluminum	308.22	0.0000000	0.0000000	0.000000	0.0000000	0.000000
Antimony	206.84	0.0000000	0.000000	0.000000	0.0000000	0.000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.000000	0.0000000	0.000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000000	0.0000000	0.0000000.
Calcium	317.93	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0000000	-0.0001650	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	294.92	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0005120
Phosphorus	178.29	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000650
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.94	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON			Contract:	23046	
Lab	Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.: GCS002-SPLP

	Wave- length	1	nterelement	Correction	Factors	for:
Analyte	(nm)	v	Zn			
Aluminum	308.22	-0.0084630	0.0000000	. •		
Antimony	206.84	-0.0060220	0.0000000			
Arsenic	189.04	0.0000000	0.0000000		}	
Barium	493.41	0.0000000	0.0000000			
Beryllium	313.04	0.0009440	0.0000000			
Cadmium	226.50	0.0000000	0.0000000			
Calcium	317.93	0.0000000	0.0000000		}	
Chromium	267.72	-0.0001950	0.0000000			
Cobalt	228.61	0.0000000	0.0000000			
Copper	324.75	0.0000000	0.0000000		1	
Iron	271.44	0.0124990	0.0000000		1	
Lead	220.35	0.0000000	0.0000000		1	
Magnesium	279.08	0.0000000	0.0000000		1	
Manganese	294.92	0.0078880	0.0000000			
Molybdenum	202.03	-0.0000010	0.0000000			
Nickel	231.60	0.0000000	0.0000000		1	
Phosphorus	178.29	0.0000000	0.0000000			
Potassium	766.49	0.0000000	0.0000000			
Selenium	196.03	0.0000920	0.0000000		1	
Silver	328.07	0.0000910	0.000000			
Sodium	330.23	0.0000000	0.0593250			1
Strontium	421.55	0.0000000	0.000000			
Thallium	190.86	-0.0011100	0.000000		1	
Titanium	334.94	0.0000000	0.000000		1	
Vanadium	292.40	0.0000000	0.0000000		1	
Zinc	213.85	-0.0000350	0.0000000			

Comments:		 		 	
	<u></u>				

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

	Wave-	II Interelement Correction Factors for:				
Analyte	length (nm)	Al	Ca	Fe	Mg	Ag
Aluminum	308.215	0.0000000	0.0000000	-0.0002180	0.0000000	0.000000
Antimony	206.838	0.0000080	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000170	0.0000000	-0.0000590	0.0000000	0.000000
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Boron	249.678	0.0000000	0.000000	-0.0000740	0.0000000	0.000000
Cadmium	226.502	0.0000010	0.000000	0.0000590	0.0000000	0.000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Chromium	267.716	0.0000100	0.000000	-0.0000200	0.0000060	0.000000
Cobalt	228.616	0.0000000	0.000000	-0.0000400	0.0000000	0.000000
Copper	324.754	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Iron	271.441	0.0001740	0.000000	0.0000000	-0.001587	0.0000000
Lead	220.353	-0.0000300	0.000000	0.0000550	-0.000006	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	-0.0000520	0.0000000	0.0000000
Phosphorus	178.287	0.0000070	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	-0.0007500	0.0000000	0.0000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000240	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000080	0.000000	-0.0001100	0.0000000	0.0000000
Tin	189.989	0.0000090	0.000000	-0.0000750	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000140	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000030	0.0000040	0.0000000
Zinc	206.200	0.0000300	0.0000000	-0.0000600	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

	Wave-					
	length	Interelement Correction Factors for:				
Analyte	(nm)	As	В	Be	Cd	Со
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	-0.0082960
Lead	220.353	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Phosphorus	178.287	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	-0.0001900
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Thallium	190.864	0.0000000	0.000000	0.0000000	0.0000000	0.0002350
Tin	189.989	0.0000000	0.0000000	-0.0004370	0.0000000	0.000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Zinc	206.200	0.0000000	0.000000	0.0000000	0.0000000	0.000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

	Wave- length]	Interelement Correction Factors for:				
Analyte	(nm)	Cr	Cu	Mn	Na	Ni	
Aluminum	308.215	0.0000000	0.000000	0.0000000	0.0000000	0:0000000	
Antimony	206.838	0.0078510	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.042	-0.0002840	0.0000000	0.0000000	0.0000000	0.0000000	
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001750	
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Iron	271.441	0.0008900	0.0000000	0.0000000	0.0000000	0.0000000	
Lead	220.353	0.0000000	0.000000	0.0000000	0.0000000	0.0000800	
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Phosphorus	178.287	-0.0007400	0.000000	0.0000000	0.0000000	0.0000000	
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium	190.864	0.0000000	0.0000000	-0.0004500	0.0000000	0.0000000	
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Zinc	206.200	0.0044570	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

	Wave-	I	nterelement	Correction E	Tactors for:	
Analyte	length (nm)	Pb	Sb	Se	Si	Tl
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	-0.0003500	0.000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0003900	0.0000000	0.0000000	0.0000000	0.0000000

Comments:	 	 			

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON			Contract:	23046	
Lab	Code: STLVT	Case No.:	23046	SAS No.:	 .	SDG No.: GCS002-SPLP

,	Wave-		Interelement	Correction	Factors	for:
Analyte	length (nm)	v	Zn			
Aluminum	308.215	0.0173200	0.0000000			
Antimony	206.838	-0.0012700	0.0000000			
Arsenic	189.042	-0.0002800	0.0000000	·		
Barium	493.409	0.0000000	0.0000000		<u> </u>	<u> </u>
Beryllium	313.042	0.0004800	0.0000000			
Boron	249.678	0.0000000	0.0000000			
Cadmium	226.502	0.0000000	0.0000000			
Calcium	317.933	0.0000000	0.0000000		<u> </u>	
Chromium	267.716	-0.0003600	0.0000000			1
Cobalt	228.616	0.0000000	0.0000000			l
Copper	324.754	0.0000000	0.0000000		1	
Iron	271.441	0.0081200	0.0000000		1	
Lead	220.353	-0.0000850	0.0000000		1	
Magnesium	279.079	0.0000000	0.0000000]	<u> </u>
Manganese	257.610	0.0000000	0.0000000		<u> </u>	<u> </u>
Molybdenum	202.030	0.0000000	0.0000000		<u> </u>	<u> </u>
Nickel	231.604	0.0000000	0.0000000		1	<u> </u>
	178.287	0.0000000	0.0164830		1	
Phosphorus			0.0000000		<u> </u>	l I
Potassium	766.491	0.0000000			1	<u> </u>
Selenium	196.026	0.0000000	0.0000000		1	
Silver	328.068	-0.0003350	0.0000000		<u> </u>	
Sodium	330.232	-0.1479730	0.6581000			<u> </u>
Strontium	421.552	0.0000000	0.0000000			
Thallium	190.864	0.0014900	0.000000			<u> </u>
Tin	189.989	0.0000000	0.000000			ļ
Titanium	334.941	0.0000000	0.0000000		<u> </u>	
Vanadium	292.402	0.0000000	0.0000000	-,	<u> </u>	
Zinc	206.200	-0.0004730	0.0000000			

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

Lah	Nama:	STIT.	BURLINGTON	Contract:	23046	
Lab	иаше:	ЭTП	DOMITMGTON	CONCLACE.	23040	

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	10000.0	P
Iron	10.00	1000000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	10000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	5000.0	P

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

Lab Nam	e: STL BURLINGTON	Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

ICP ID Number: TJA ICAP 5 Date: 07/01/03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Iron	10.00	1000000.0	P
Magnesium	10.00	600000.0	P

Comments:

12 ICP LINEAR RANGES (QUARTERLY)

Lab Name: STL BURLINGTON Contract: 23046

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	100000.0	P
Lead	10.00	50000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	50000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	10000.0	P

Comments:			

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCS002-SPLP</u>

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
CAPMWPSUS20 (4.0) SPLP	07/28/03	1.0	100.0
CAPMWPSUS21 (2.5) SPLP	07/28/03	1.0	100.0
CAPMWPSUS39(2.0)SPLP	07/28/03	1.0	100.0
GRANBGSSS34 (0.5) SPLP	07/28/03	1.0	100.0
GRANBGSSS35 (0.5) SPLP	07/28/03	1.0	100.0
GRANBGSSS36(0.5)SPLP	07/28/03	1.0	100.0
LCSW0728B	07/28/03	100.0	100.0
PBW0728B	07/28/03	100.0	100.0
SHERWPSUS23 (3.5) SPLP	07/28/03	1.0	100.0

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXWPSUS08(1.2)SPLP	08/09/03	1.0	100.0
AJAXWPSUS09(1.0)SPLP	08/09/03	1.0	100.0
AJAXWPSUS10(2.0)SPLP	08/09/03	1.0	100.0
EBLKN9	08/08/03	1.0	100.0
EBLKP8	08/08/03	1.0	100.0
LCSW0809A	08/09/03	100.0	100.0
LUCABGSSS19(0.5)SPLP	08/09/03	1.0	100.0
MAGNTASSS15(0.5)SPLP	08/09/03	1.0	100.0
MAGNTASSS150.5100SPL	08/09/03	1.0	100.0
MAGNWPSSS16(0.5)SPLP	08/09/03	1.0	100.0
MAGNWPSUS14(3.0)SPLP	08/09/03	1.0	100.0
MAGNWPSUS143.0SPLPD	08/09/03	1.0	100.0
MAGNWPSUS143.0SPLPS	08/09/03	1.0	100.0
MAGNWPSUS17(2.0)SPLP	08/09/03	1.0	100.0
PBW0809A	08/09/03	100.0	100.0

13 PREPARATION LOG

Lab Name:	STL BURLINGTON	Contract:	23046
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Method: P

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
CAPMWPSUS20(4.0)SPLP	07/31/03	100.0	100.0
CAPMWPSUS21 (2.5) SPLP	07/31/03	100.0	100.0
CAPMWPSUS39 (2.0) SPLP	07/31/03	100.0	100.0
GRANBGSSS34 (0.5) SPLP	07/31/03	100.0	100.0
GRANBGSSS35 (0.5) SPLP	07/31/03	100.0	100.0
GRANBGSSS36(0.5)SPLP	07/31/03	100.0	100.0
LCSW0731D	07/31/03	100.0	100.0
PBW0731D .	07/31/03	100.0	100.0
SHERWPSUS23 (3.5) SPLP	07/31/03	100.0	100.0

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: P

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXWPSUS08(1.2)SPLP	08/07/03	100.0	100.0
AJAXWPSUS09(1.0)SPLP	08/07/03	100.0	100.0
AJAXWPSUS10(2.0)SPLP	08/07/03	100.0	100.0
EBLKN9	08/07/03	100.0	100.0
EBLKP8	08/07/03	100.0	100.0
LCSDW0807H	08/07/03	100.0	100.0
LCSW0807H	· 08/07/03	100.0	100.0
LUCABGSSS19(0.5)SPLP	08/07/03	100.0	100.0
MAGNTASSS15(0.5)SPLP	08/07/03	100.0	100.0
MAGNTASSS150.5100SPL	08/07/03	100.0	100.0
MAGNWPSSS16(0.5)SPLP	08/07/03	100.0	100.0
MAGNWPSUS14(3.0)SPLP	08/07/03	100.0	100.0
MAGNWPSUS143.0SPLPD	08/07/03	100.0	100.0
MAGNWPSUS143.0SPLPS	08/07/03	100.0	100.0
MAGNWPSUS17(2.0)SPLP	08/07/03	100.0	100.0
PBW0807H	08/07/03	100.0	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/14/03 End Date: 08/14/03

EPA															ıly	te	s				·					.,	
Sample No.	D/F	Time	8 R	A		A S		B E	C D	C A		С 0	C U			M G	M	H G	N	к	S E	A G	N A		V	Z N	C N
S0··	1.00	2017		F	F	-	<u> </u>	<u> </u>	F		_	-	Ľ	_	F		-		_	_	<u> </u>	-		_	_	-	
s	1.00						<u> </u>	<u> </u>	<u> </u>		L 	-	L I	l	┢		\vdash				L	\vdash	Н		_	H	-¦
S	1.00						L		-	L		-	<u> </u>		х		\vdash		H			-	Н			\vdash	-¦
S	1.00						<u> </u>	 	<u> </u>		<u> </u>		<u> </u>	 					Н		<u> </u>	┝	Н			\vdash	-¦
LRS	1.00				-		l .	-					L 		х		Н		Н		<u> </u>	-	Н		-	H	-¦
LRS	1.00						l	<u> </u>	<u> </u>	Н			L	<u> </u>	Х		Ш		Н		 	\vdash	Н			H	-¦
LRS	1.00								-	Н		_		Н	х		Н				L		Н			H	-¦
ICV	1.00								-						Х								Н				-i
ICB	1.00	2049								Н			\vdash	\vdash	х						┪	-				H	-i
ICSA	1.00						Н	_	_				-	-	х		H				Н	H	H			Н	٦¦
ICSAB	1.00	2058				_			╁		L			\vdash	х		Н								L	H	-¦
CRI	1.00														х											一	-¦
ccv	1.00								-						х								Н			H	-i
CCB	1.00														х											\Box	-¦
ZZZZZZ	1.00	2114							_																	П	-¦
ZZZZZZ	1.00	2118								П									П	_			H			一	-i
ZZZZZZ	1.00	2122							┢																	П	-i
ZZZZZZ	5.00	2126							╁									ヿ									-i
ZZZZZZ	1.00	2130								П												_	i			П	-i
ZZZZZZ	1.00	2134																				-				П	-i
ZZZZZZ	1.00	2138								П																	_ i
ZZZZZZ	1.00	2143								П													T	,			-i
ZZZZZZ	1.00	2147								П		П														\Box	−i
ZZZZZZ	1.00	2151								П																	-i
ccv	1.00	2155										П			х								П			\Box	-i
CCB	1.00	2159													х											П	−i
ZZZZZZ	1.00	2203								П																П	-i
ZZZZZZ	1.00	2207								Ιİ																П	-i
ZZZZZZ	1.00	2211								İ																П	-i
ZZZZZZ	1.00	2215																								П	-j
ZZZZZZ	5.00	2219																								П	-i
ZZZZZZ	1.00	2223																								\Box	-i
ZZZZZZ	1.00	2227																									-i
ZZZZZZ	1.00	2231																Ì									_i
EBLKN9	1.00	2235													Х												_i
CCV	1.00	2239													Х												_í_
ССВ	1.00	2244													Х												_i
ICSA	1.00	2248													Х												<u> </u>

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ANALYSIS RUN LOG

 Lab Name: STL BURLINGTON
 Contract: 23046

 Lab Code: STLVT
 Case No.: 23046
 SAS No.: ______ SDG No.: GCS002-SPLP

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/14/03 End Date: 08/14/03

EPA										 	P	ma	lу	te	s							
Sample No.	D/F	Time	% R	A L	_	A S	B A	ı	C A	С 0					M N	i I	1		N A	 V	z N	C
ICSAB	1.00	2252											Х									
CRI	1.00	2256											х									
ccv	1.00	2300											x									
CCB	1.00	2304											x									

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: TJA ICAP 6 Method: P

EPA		<u>. </u>											F	na	ly	tes	3										\neg
Sample	D/F	Time	% R	A	S	A	В	В	С	С	С	С	С	F	P	М	м	н	N	к	S	A	N	T	v	Z	c
No.				r	В	s	A		D	A	R		ט	E	В	G	и	G	I		E	G	A	L		N	N
S0	. 1.00	0213		х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х		Х		X	X	X	Х	Х	X	Х	Х	\Box
S	1.00	0217		х						х										Х			Х				_
S	1.00	0220	-		х	х									х						X			X			_
S	1.00	0224					х	Х	X		Х	х	x				x		Х			Х			\mathbf{x}	X	
LRS	1.00	0229		х	х	х	х	X	X	х	Х	х	х		Х		Х		Х	Х	X	Х	Х	Х	x	X	<u> </u>
LRS	1.00	0233		х	х	х	X	X	x	х	Х	X ·	х		х		Х		Х	X	X	Х	Х	X	х	x	<u> </u>
LRS	1.00	0237		х	х	х	Х	X	X	Х	х	х	x		Х		Х		Х	Х	Х	Х	Х	X	x	x	
ICA	1.00	0241		x	х	х	X	X	X	x	Х	х	х		Х		x		Х	Х	X	Х	X	X	х	X	
ICB	1.00	0245		х	х	Х	Х	X	Х	х	х	х	х		х		х		X	X	X	Х	Х	X	x	х	\equiv l
ICSA	1.00	0249		x	х	х	Х	х	x	х	х	x	х		Х		x		Х	Х	X	Х	Х	Х	\mathbf{x}	X	_
ICSAB	1.00	0254		х	Х	х	Х	Х	х	х	Х	x	х		х		х		х	Х	Х	Х	Х	Х	х	Х	_
CRI	1.00	0258		х	х	х	х	х	x	х	х	х	х		х		Х		х	Х	X	Х	X	х	x	х	\equiv l
ccv	1.00	0302		х	х	х	х	х	X	х	X	x	х		х		Х		Х	X	X	Х	Х	Х	х	х	_
ССВ	1.00	0306		х	х	х	х	х	x	х	х	х	х		х		х		Х	X	X	х	Х	Х	х	х	
PBW0731D	1.00	0310		х	х	х	х	х	x	х	х	х	Х		х		x		х	Х	X	Х	Х	х	x	X	_
LCSW0731D	1.00	0314		х	х	х	х	x	Х	x	х	х	х		х		x		Х	Х	X	Х	Х	х	x	Х	\equiv l
SHERWPSUS23(3.5)SPLP	1.00	0318		х	х	Х	х	х	Х	х	х	х	х		х		х		Х	X	X	Х	Х	Х	х	х	_
SHERWPSUS23 (3.5) SPLP	5.00	0322		х	х	х	х	Х	Х	Х	х	х	х		х		x		Х	Х	X	Х	Х	Х	x	х	
ZZZZZZ	1.00	0326																									_
CAPMWPSUS20(4.0)SPLP	1.00	0331		х	Х	Х	Х	X	X	Х	Х	х	х		X		x		Х	X	X	Х	Х	Х	х	х	
CAPMWPSUS21 (2.5) SPLP	1.00	0335		х	Х	Х	x	X	Х	Х	Х	х	х		X		x		Х	X	X	Х	Х	Х	x	x	I
CAPMWPSUS39(2.0)SPLP	1.00	0339		х	Х	Х	x	X	X	х	Х	х	Х		Х		х		Х	X	X	х	Х	X	x	х	
GRANBGSSS34 (0.5) SPLP	1.00	0343		Х	Х	Х	x	X	X	х	Х	x	x		Х		х		Х	X	X	Х	Х	х	x	x	_
GRANBGSSS35(0.5)SPLP	1.00	0347		x	X	X	X	X	X	х	Х	x	X		х		х		X	X	X	Х	Х	X	x	X	I
CCA	1.00	0351		x	X	Х	x	X	X	Х	Х	x	X		X		x		Х	X	X	Х	Х	x	x	x	
ССВ	1.00	0355		х	х	Х	X	X	X	х	х	х	x		Х		x		Х	X	X	Х	X	X	\mathbf{x}	X	
GRANBGSSS36(0.5)SPLP	1.00	0359		х	х	х	х	X	X	х	х	х	x		Х	·	x		Х	X	X	Х	X	Х	х	х	I
PBW0807H	1.00	0403		х	х	Х	х	Х	X	х	Х	х	х		х		х		Х	X	X	Х	X	X	x	X	_
LCSW0807H	1.00	0407		x	X	Х	х	Х	x	X	х	х	х		х		х		Х	X	X	х	X	Х	x	X	
LCSDW0807H	1.00	0412		x	Х	х	X	X	X	Х	Х	x	x		x		х		Х	X	X	Х	Х	X	x	X	I
AJAXWPSUS08(1.2)SPLP	1.00	0416		х	Х	x	X	X	X	Х	Х	х	х		х		x		X	X	X	Х	X	X	x	X	_
AJAXWPSUS09(1.0)SPLP	1.00	0420		x	х	Х	х	Х	х	Х	х	x	x		Х		X		Х	Х	X	Х	X	X	x	х	
MAGNTASSS15(0.5)SPLP	1.00	0424		х	Х	х	Х	Х	X	Х	Х	x	х		Х		х		х	Х	X	х	Х	X	х	х	_
MAGNTASSS150.5100SPL	1.00	0428		х	х	х	Х	х	X	х	Х	x	x		х		х		х	X	X	Х	Х	Х	х	х	_
LUCABGSSS19(0.5)SPLP	1.00	0432		х	Х	х	Х	х	X	Х	Х	х	х		х		х		Х	Х	X	Х	х	Х	х	х	_1
MAGNWPSSS16(0.5)SPLP	1.00	0436		х	Х	х	Х	Х	х	х	Х	x	х		Х		Х		Х	X	X	Х	Х	X	х	Х	
CCV	1.00	0440		х	Х	х	Х	Х	X	Х	Х	х	х		Х		Х		х	X	X	х	Х	X	х	Х	_
ССВ	1.00	0444		х	х	х	х	X	X	х	X	х	х		X		Х		Х	Х	X	х	Х	Х	х	X	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 6 Method: P

EPA														na	1y	te	s										_
Sample	D/F	Time	% R	A	s	Α	В	В	c	С	С	С	С	F	P	М	М	Н	N	к	s	A	N	т	v	z	С
No.				L	В	s	A	E	D	A	R	0	บ	E	В	G	N	G	I		E	G	A	L		N	И
AJAXWPSUS10(2.0)SPLP	1.00	0448		х	X	x	x	X	х	Х	Х	х	х		Х		Х		X	Х	Х	х	Х	х	х	Х	
MAGNWPSUS14(3.0)SPLP	1.00	0453		X	Х	x	х	x	х	х	х	х	х		х		X		Х	Х	Х	х	х	х	х	х	
MAGNWPSUS14(3.0)SPLP	5.00	0457		х	х	х	х	х	х	Х	X	х	х		х		Х		X	Х	Х	Х	х	х	х	х	
MAGNWPSUS14(3.0)SPLP	1.00	0501		х	х	х	x	х	х	Ī	х	х	х		х		х		Х		Х	Х		х	х	х	.
MAGNWPSUS143.0SPLPD	1.00	0505		х	x	х	х	х	Х	x	х	х	х		х		X		Х	Х	X	X	Х	Х	х	х	
MAGNWPSUS143.0SPLPS	1.00	0509				x	х		х		Х		x		х	•			X		Х	Х				х	_
MAGNWPSUS17(2.0)SPLP	1.00	0513		х	х	х	х	х	x	X	х	х	х		х		х		X	Х	Х	Х	Х	х	х	Х	_
EBLKP8	1.00	0517		х	х	x	х	х	Х	x	х	x	x		х		х		Х	Х	X	Х	X	Х	х	Х	_
CCV	1.00	0521		х	х	x	х	х	х	x	x	х	x		х		х		Х	Х	x	х	X	х	x	Х	
ССВ	1.00	0525		х	х	х	х	х	х	х	x	х	x		х		Х		Х	Х	X	х	Х	Х	х	х	
ICSA	1.00	0529		х	х	х	Х	х	Х	Х	X	х	х		х		х		Х	Х	Х	х	Х	Х	х	Х	_
ICSAB	1.00	0534		х	Х	х	х	х	Х	Х	x	х	х		x		х		х	х	х	х	х	х	х	х	
CRI	1.00	0538		х	х	х	х	Х	Х	Х	X	х	х		х		Х		Х	X	х	х	Х	Х	х	Х	
CCV	1.00	0542		х	х	х	х	Х	Х	х	x	х	х		х		Х		Х	X	X	X	Х	Х	х	Х	
ССВ	1.00	0546		х	х	х	х	х	X	х	x	х	х		х		х		Х	X	X	X	X	X	х	х	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 5 Method: P

EPA													P	ına	ly	te	S										7
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	A	N	T	v	Z	c
No.						s	A		D	A		0				G		G	I		E	G	A			N	И
s0	1.00	1042												х		X											
S	1.00	1049												x		X											
S	1.00	1054																									_
S	1.00	1058																									_
LRS	1.00	1105												х		X											\equiv l
LRS	1.00	1111												х		X				·							_l
LRS	1.00	1117												х		x											_
ICV	1.00	1124												x		x											
ICB	1.00	1130												х		x											
ICSA	1.00	1136												х		х										П	-1
ICSAB	1.00	1143												х		x							Ī			\Box	_
CRI	1.00	1149												х		х							Ī				_ i
ccv	1.00	1155										Πİ		х		x							Ī			T	_ i
ССВ	1.00	1202												х		x							Ì			\exists	_ i
PBW0731D	1.00	1208												х		х	一							Ī		T	_ i
LCSW0731D	1.00	1214										Ì		х	Ī	х				i				T		丁	_ i
SHERWPSUS23 (3.5) SPLP	1.00	1220												х		x									T	寸	-i
SHERWPSUS23 (3.5) SPLP	5.00	1227												х	-	х	一							T	٦	寸	_i
ZZZZZZ	1.00	1233													Ī			Ì	Ì	i			İ	T		寸	-i
CAPMWPSUS20(4.0)SPLP	1.00	1239												х	-	х			Î					T		ヿ	_i
CAPMWPSUS21 (2.5) SPLP	1.00	1246												х		х		Ī	Ì				Ī	1		丁	-i
CAPMWPSUS39(2.0)SPLP	1.00	1252												х		х		Ì	Ì	i				Ī		\Box	-i
GRANBGSSS34 (0.5) SPLP	1.00	1258								Ī		İ		х		x	T	T	一					T		ヿ	-i
GRANBGSSS35 (0.5) SPLP	1.00	1304												х		x				Ī						T	-i
ccv	1.00	1311												х		x	T			ī						寸	-i
ССВ	1.00	1317												х		х	T			Ī				寸		寸	-i
GRANBGSSS36 (0.5) SPLP	1.00	1323												х		x				i				一		寸	-i
PBW0807H	1.00	1329												х		x									T	寸	−i
LCSW0807H	1.00	1336												х		х	T		T				T			丁	-i
LCSDW0807H	1.00	1342										i		х	T.	x	T	ī	一	一			T				-i
AJAXWPSUS08 (1.2) SPLP	1.00	1348												х	- 1	x		ヿ	T							\exists	-i
AJAXWPSUS09(1.0)SPLP	1.00	1355				ĺ						T		х	7	x	1		一	i			T	7	T	\dashv	-i
MAGNTASSS15(0.5)SPLP		1401												х		x	寸		T					寸		一	-i
MAGNTASSS150.5100SPL	1.00	1407												х		x	寸			Ī					1	\exists	-i
LUCABGSSS19(0.5)SPLP	1.00	1413												х		x	寸			i					\neg	\neg	-i
MAGNWPSSS16(0.5)SPLP	1.00	1419												х		x	寸			i				寸	1	寸	-i
ccv	1.00	1426		\Box										х	7	x	寸							7	\dashv	\exists	−i
ССВ	1.00	1432												х	-	x			一	i	一		i	寸	1	寸	-i

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 5 Method: P

EPA				<u> </u>									P	na	ly	te	s										
Sample	D/F	Time	% R	Α	S	A	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	S	Α	N	T	v	z	С
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	И	G	I		E	G	A	L		N	N
AJAXWPSUS10(2.0)SPLP	1.00	1438												х		X											_
MAGNWPSUS14 (3.0) SPLP	1.00	1444						l						x		X											_
MAGNWPSUS14(3.0)SPLP	5.00	1451												х		X											
MAGNWPSUS14(3.0)SPLP	1.00	1457												x													
MAGNWPSUS143.0SPLPD	1.00	1503												x		X											
MAGNWPSUS143.0SPLPS	1.00	1509																						·			
MAGNWPSUS17 (2.0) SPLP	1.00	1516												х		X											
EBLKP8	1.00	1522					Ī							х		X											
ccv	1.00	1528												х		X											
CCB	1.00	1534		Γ										x		X											_
ICSA	1.00	1541												х		X											
ICSAB	1.00	1547												x		x											
CRI	1.00	1553					Ī							х		x											_
ccv	1.00	1600												x		X											
ССВ	1.00	1606												х		X											_

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/21/03 End Date: 09/21/03

EPA													A	na	lyt	tes	3										\neg
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	м	н	N	K	S	A	N	Т	v	Z	ट
No.				L	В	s	A	E	D	Α		0			В	G	и	G	I		E	G	A	L		И	И
S0	1.00	1458		х	Х	Х	х	Х	Х	Χ.	X	х	х	Х		Х	Х		X	X	Х	Х	Х	X	X	Х	\Box
S	1.00	1503		x						Х				х	ļ	x				X	<u> </u>		Х				
S	1.00	1506			Х	x															X			Х			_
S	1.00	1510					Х	х	Х		Х	х	X				x		X			Х			x	Х	_
LRS	1.00	1515		х	Х	х	X	X	Х	Х	Х	x	x	х			x		X			Х			х	Х	_
LRS	1.00	1520		Х	X	Х	X	X	Х	x	X	x	X	x		_	x		Х			х			х	х	[
LRS	1.00	1525		Х	X	Х	Х	X	Х	Х	Х	х	х	х			\mathbf{x}		X	X	X	Х	Х	X	х	Х	
ICV	1.00	1529		Х	X	Х	X	X	х	X	Х	x	X	x		_	x		Х	Х	X	х	Х	X	х	Х	!
ICB	1.00	1534		х	X	Х	Х	X	х	X	Х	x	х	х		x	x		Х			х			х	Х	[
ICSA	1.00	1539		х	Х	х	X	Х	x	х	х	х	х	х			Х		Х			х			х	Х	_
ICSAB	1.00	1543		х	Х	х	X	Х	X	Х	Х		х	х		х	X		Х			х	_		x	Х	_
CRI	1.00	1548		х	X	х	X	X	Х	х	Х	х	Х	x		x	x		X	X	Х	х	X	Х	x	х	_
CCV	1.00	1553		x	Х	х	x	Х	Х	Х	Х	x	x	x		x	x		X			х			х	Х	_
ССВ	1.00	1558		х	X	Х	Х	X	Х	х	х	x	х	х		x	x		X			х		_	x	x	
EBLKN9	1.00	1602		х	Х	х	Х	х	Х	Х	Х	х	х	x		x	x		X	X	х	х	х	Х	$ \mathbf{x} $	Х	!
ZZZZZZ	1.00	1607																									I
ZZZZZZ	1.00	1612																									
ZZZZZZ	10.00	1616																			L			L			_
ZZZZZZ	10.00	1621																			L		L				
ZZZZZZ	10.00	1625																				L					
ZZZZZZ	10.00	1630																									_
ZZZZZZ	10.00	1635																,									
ZZZZZZ	10.00	1639																			L			<u> </u>	Ш		
ZZZZZZ	10.00	1644									<u> </u>												L				[
ccv	1.00	1649		x	Х	х	Х	X	х	X	х	х	X	х		x	Х		x	X	X	x	Х	Х	х	Х	
ССВ	1.00	1653		Х	Х	x	Х	X	х	x	x	х	Х	х		x	х		Х	X	Х	Х	Х	Х	х	X	!
ZZZZZZ	10.00	1658																						L			!
ZZZZZZ	10.00	1703																									
ZZZZZZ	10.00	1707								<u> </u>																	_
ZZZZZZ	10.00	1712																									
ZZZZZZ	10.00	1717																									I
ZZZZZZ	10.00	1721																					L		Ш		
ZZZZZZ	10.00	1726																		_			<u> </u>	<u> </u>	Ш	Ш	
ZZZZZZ	10.00	1730																					L				!
ZZZZZZ	10.00	1735																									
ZZZZZZ	10.00	1740																									
ccv	1.00	1744		Х	Х	х	Х	х	x	Х	Х	х	x	х		x	Х				<u> </u>		_		х		
CCB	1.00	1749		х	Х	х	x	х	X	X	Х	х	x	х		x	Х		Х	X	X	х	X	X	x	x	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/21/03 End Date: 09/21/03

EPA													P	lna	1y	te	s										
Sample No.	D/F	Time	% R	A L	S B	A S	B A		C D	C A		l .		F E		M G	1	H G	N	ı	S E	A G	N A	T L	V	1 I	C N
ZZZZZZ	10.00	1754								П		Г															
ZZZZZZ	50.00	1758		Ī			Ī	Ī		Π		Γ														\Box	
ZZZZZZ	10.00	1803																									_
ZZZZZZ	10.00	1808																									
ZZZZZZ	10.00	1812								Ī																	
ZZZZZZ	10.00	1817					1															<u> </u>					
ZZZZZZ	50.00	1822								Π																	_
ZZZZZZ	10.00	1826									l															Ш	
ZZZZZZ	10.00	1831						ŀ	Γ																	\Box	
CCV	1.00	1835		х	х	х	х	х	Х	x	х	х	x	х		Х	Х		X	Х	Х	х	Х	Х	x	x	
CCB	1.00	1840		х	х	х	х	х	х	x	x	x	х	x		X	Х		X	Х	x	Х	Х	Х	х	Х	_
ICSA	1.00	1845		х	х	х	х	х	х	x	х	x	x	х		X	Х		X	Х	Х	Х	Х	Х	x	Х	_
ICSAB	1.00	1850		x	х	х	х	х	х	x	х	х	х	х		X	X		X	Х	X	х	Х	X	x	х	_
CRI	1.00	1854		х	х	х	х	х	x	x	х	x	x	х		x	Х		х	Х	x	x	Х	X	x	х	_
CCV	1.00	1859		х	х	х	х	Х	x	х	х	х	х	х		x	Х		X	X	X	Х	Х	Х	x	x	_
CCB	1.00	1904	·	х	Х	х	х	х	x	x	x	x	х	х		х	Х		х	Х	Х	х	Х	Х	х	x	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/01/03 End Date: 08/01/03

EPA													7	lna	ly	te	 S										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	н	N	K	s	A	N	T	v	Z	С
No.				L		s			D	A		0				G		G	I		E		A			И	N
S0	1.00	0942						Г		İ		İ						. X									
S0	1.00	0946																X									
S0.2	1.00	0948																X									_
S0.5	1.00	0949																X									\equiv l
S1	1.00	0951																Х									
S 5	1.00	0954																X									_
S10	1.00	0955					Ī											X						Ĭ			\equiv I
ICV	1.00	0957																х									
ICB	1.00	0959						Ì	Π	Ī								Х				Γ					_
CRA	1.00	1001							Γ									Х				Π					_
CCV	1.00	1002							Π									Х									
ССВ	1.00	1004				Ì			Π									х								Ī	i
PBW0728B	1.00	1006											Γ					Х			ĺ			Π			_ i
LCSW0728B	1.00	1008				<u> </u>							Ì					Х			Ī	Π				Πİ	
ZZZZZZ	1.00	1009						Ì	Ī												Ī	Γ					_
ZZZZZZ	1.00	1012				Ì			Π	П			Ī														_
SHERWPSUS23(3.5)SPLP	1.00	1013						Ī	Γ				Ī					Х									
CAPMWPSUS20 (4.0) SPLP	1.00	1015				Ī												Х									_
CAPMWPSUS21 (2.5) SPLP	1.00	1017				İ	Ī		Ī									Х			Π						
CAPMWPSUS39(2.0)SPLP	1.00	1019				Ī			Ì			İ						Х									
GRANBGSSS34 (0.5) SPLP	1.00	1021		İ			i		Π									Х				Ī			Γ		_
ccv	1.00	1022					Ī		Ī	Ī		Ī						Х			Π						
CCB	1.00	1024		Г			1		Π		Ì							Х			Ī						
GRANBGSSS35 (0.5) SPLP	1.00	1026			İ		Ì	Ì	Γ				<u> </u>					Х								П	_ i
GRANBGSSS36 (0.5) SPLP	1.00	1028						<u> </u>										Х			Ī			Ì			_
ZZZZZZ	1.00	1030		Г													Ī				Ī			Ī			_
ZZZZZZ	1.00	1031		Г			İ	İ	Γ				Γ								Î	Γ		İ			_
ZZZZZZ	1.00	1033		Ī	Ī			Ì													-			İ			
ZZZZZZ	1.00	1035		Î			<u> </u>		ĺ		Ī		Ī				П				Π						
ZZZZZZ	1.00	1037		Ī			Ī			ĺ			Ī				П				Π						
ZZZZZZ	1.00	1039					Î		Ī	Ī			Ī				П				Ī						,
ZZZZZZ	1.00	1040		Γ	İ		İ		Ì				Ī				П				Ī						
CCV	1.00	1043	/		<u> </u>		İ	İ	Τ	Ī	Ī	Π	Ī				П	х			ĺ			<u> </u>	Π		<u> </u>
ССВ	1.00	1045		İ	 	İ	Ī	Ī	Π	Ī			İ				П	Х			ĺ						i

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/10/03 End Date: 08/10/03

EPA													Į	\na	ly	te											
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	C	F	P	М	М	Н	N	K	S	Α	N	T	v	Z	С
No.				L	В	s	A		D	A		0				G		G	I				A	L		И	N
S0	1.00	0600															İ	Х									二
S0.2	1.00	0602																X									
S0.5	1.00	0604																X									_
S1	1.00	0606																X								\Box	_
S5	1.00	0608																X									
S10	1.00	0609																Х									
ICV	1.00	0611																Х									
ICB	1.00	0613																X									_
CRA	1.00	0615																X									_
ccv	1.00	0616																X									
ССВ	1.00	0618																Х									1
PBW0809A	1.00	0620																X									_
LCSW0809A	1.00	0622							ļ									X									
ZZZZZZ	1.00	0623																									
ZZZZZZ	1.00	0625																									_
ZZZZZZ	1.00	0627							Ĺ																		[
ZZZZZZ	1.00	0629																				_					
ZZZZZZ	1.00	0631							L																		
ZZZZZZ	1.00	0633																									
AJAXWPSUS08 (1.2) SPLP	1.00	0635																Х									
CCV	1.00	0637								Ш								Х				_					!
CCB	1.00	0639								Ш				<u> </u>			Ш	Х									
AJAXWPSUS09(1.0)SPLP	1.00	0641								Ш								Х									
MAGNTASSS15 (0.5) SPLP	1.00	0643								Ш							Ш	Х									<u></u>
MAGNTASSS150.5100SPL	1.00	0645																X			L				Ш		<u></u>
LUCABGSSS19(0.5)SPLP	1.00	0647									L							X							Ш		!
MAGNWPSSS16(0.5)SPLP	1.00	0649									L							X			L						!
AJAXWPSUS10(2.0)SPLP	1.00	0650																X							Ш]
MAGNWPSUS14(3.0)SPLP	1.00	0652																X			L					\Box	
MAGNWPSUS143.0SPLPS	1.00	0654											L					X									
MAGNWPSUS143.0SPLPD	1.00	0656																Х							Ш		
CCV	1.00	0658																X	-			L			Ш		<u></u> ∐
CCB	1.00	0700																Х								Ш	<u></u>
MAGNWPSUS17 (2.0) SPLP	1.00	0702																Х								$oxedsymbol{oxed}$	I
ZZZZZZ	1.00	0704							L								Ш						<u> </u>	L		oxed	I
ZZZZZZ	1.00	0706								$oxed{oxed}$			<u> </u>				Ш					L	<u> </u>				_
ZZZZZZ	1.00	0708															Щ						<u> </u>				!
ZZZZZZ	1.00	0710															Ш							L		Ĺ.	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCS002-SPLP

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/10/03 End Date: 08/10/03

EPA													7	\na	ıly	te	s									
Sample No.	D/F	Time	% R	A	S B	A S	B A	B E	l	C A	l	С 0	1	F E	P B		M N	H G	N I		S E	A G	 T L	V	Z N	
ZZZZZZ	1.00	0712							Τ																	
ZZZZZZ	1.00	0713								П																
EBLKN9	1.00	0715																x								
EBLKP8	1.00	0717							Γ									х								
CCV	1.00	0719								İ		Π						х		Г						
ССВ	1.00	0721																х								

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCV001



September 17, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCV001

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 12, 15, 18, 22 and 24, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client Sample ID	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/12/03	ETR No: 94699	
533808 533809 533810	MONU-WP-PLT-15 MONU-WP-PLT-14 EBLK	07/09/03 07/10/03	Solid Solid Water
	Received: 07/15/03	ETR No: 94720	
533933 533934	CENT-WP-PLT-31 TILL-WP-PLT-27	07/11/03 07/12/03	Solid Solid
	Received: 07/18/03	ETR No: 94839	
534697 534698 534699 534700 534701 534702 534702MS 534702DP	SHERWPPLT23 SHERWPPLT23(100) CAPMWPPLT20 GRANBGPLT35 GRANBGPLT34 GRANBGPLT36 GRANBGPLT36MS GRANBGPLT36MS	07/14/03 07/14/03 07/15/03 07/15/03 07/15/03 07/15/03 07/15/03	Solid Solid Solid Solid Solid Solid Solid Solid

Lab ID	Client <u>Sample ID</u>	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/22/03	ETR No: 94942	
535357 535358 535359 535360 535361 535362	AJAXWPPLT08 AJAXPDPLT06 MAGNWPPLT14 MAGNPDPLT11 LUCABGPLT19 MAGNWPPLT17	07/17/03 07/17/03 07/18/03 07/18/03 07/19/03 07/19/03	Solid Solid Solid Solid Solid Solid
	Received: 07/24/03	ETR No: 94998	
535819 535820 535859	BLUEWPPLT20 BLUEWPPLT24 EBLK	07/21/03 07/21/03	Solid Solid Water

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal.

The plant samples were homogenized for analysis by the lab and after homogenization the tissue was maintained in frozen storage at -20 °C.

The results for the tissue samples are reported on a dry weight basis. In preparing the tissues, an equipment bank was generated in order to characterize the homogenization process. This blank, identified as "EBLK", was carried through each of the analytical processes, using weighed amounts similar to the tissue amounts that were analyzed. The results have been reported on the same weight/weight basis as the tissue samples.

Metals by ICP / CVAA

The percent differences between the original determination and the serial dilution determination for potassium and zinc in sample GRANBGPLT36 were 24.0 and 19.8 percent, respectively. These recoveries are above the control criteria of ±10 percent. Matrix interference is suspected and results have been flagged with an "E" accordingly.

The recovery of cyanide from the laboratory fortified aliquot of sample GRANBGPLT36 was 47.5 percent which is below the control limit of 75-100 percent. Corresponding sample results

have been qualified with an "N" to denote this anomaly. Recovery from the post digestate spike proved acceptable as did recovery from the laboratory control sample.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely,

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/jtw/jmm

0001-c Last Alpha

CHAIN OF CUSTODY RECORD

Report to: any: EA Engineeying tact: Jen Kindred tact: Jen Kindred one: 425-451-7460 Fax: 425-451-7800 act/ iote: ler's Name raphas Fatherer Don Porn aphas Fatherer Don Porn on 1916 Time of a lidentifying Marks of s 1916 Time of a lidentifying Marks of s 1916 Time of a lidentifying Marks of s 1916 Time of a lidentifying Marks of s Monu-wp 1916 Time of a lidentifying Marks of s Monu-wp 1916 Time of a lidentifying Marks of s	Company: Same Contact: Phone: Fax: No/Type of Containers* Sample(s) No/Type of Containers* NoA A/G 250 P/O 1 Lt. mil P/O	ANALYSIS REQUESTED REQUESTED REQUESTED	Due Date: Temp. of coolers when received (C°): 1 2 3 4 5 Custody Seal N / Y Intact N / Y Screened For Radioactivity Lab/Sample ID (Lab Use Only)
Proj. No. 13890.13/16 Gran/E Creck Waters	100m Norman	TAL Met Cyanide	
x ¹ Date Time m a dentifying Marks of S	7-15 voa 11t.		Sample ID (Lab Use Only)
Tholas was X monu-wp-		X X	
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		7	
Relinquished by: (Signature) Date 1-(1-43) Relinquished by: (Signature) Date 1	Time Received by: (Signature Date 67,12:03	Time Remarks Time	
Reinquished by: (Signature) Date	Date	Time Client's delivery of samples constitutes a terms and conditions contained in the P	ern Trent Laboratories
'Matrix WW - Wastewater W - Water S - Soil 'Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter	L - Liquid A - Air bag C - Charco 250 ml - Glass wide mouth P/O -	SL · Sludge 0 · Oil or other Zipiock bag	STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248

TRENT 208 South Park Drive, Suite 1

SEVERN TRENT LABORATORIES, INC. Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

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Ige 0 - Oil STL cannot accept verbal changes. Cl. 602 Please Fax written changes to (802) 655-1248	oal Tube SL - Sludge 0 Plastic or other 2 1910 ch bag	Charc	A - Air bag C - Glass wide mouth	L - Liquid 250 ml -	S - Soil / Or Glass 1 L	W - Water S - Soil A/G - Amber / Or Glass 1 Liter	'Matrix WW Wastewater 'Container VOA 40 ml vial
Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.	Time C	Date	ure	Received by: (Signature	Time	Date	Relinquished by: (Signature)
	Time	Date	ure	Received by: (Signature	Time	bate	Relinquished by: (Signature)
Remarks	Time R	Date 7//5/63	ure	Reseived by: (Signature	9 to	The art	Relinquisted by: (Signature)
	\times	_ ×		PLT-27		TILL MP	
	X	_ X		- a	P-PLT	cent-wp-	X
Lab/Sample ID (Lab Use Only)		²⁵⁰ P/0	VOA A/G 1 Lt.		Sample(s)	Identifying Marks of Sample(s)	Time C G
	4L Yan	<u> </u>	No/Type of Containers ²	6	Luetersh	Oren watershear	Proj. No. Project Name
	Met Lace	<u> </u>	3	n/alma	100		Din Morman
	2/5			Simpler's Signature	Sample		Sampler's Name
Screened For Radioactivity					<u> </u>		
Intact N/Y				Phone:	- 	8 8	Phone: 425-451-7480
1 2 3 4 5				Contact:	် 	nd red	Contact: Jen Kindre
Temp. of coolers when received (C°):						rd suite	11 7
Lab Use Only Due Date:	ANALYSIS REQUESTED	R. A	e to:	Invoice to:		<u>چ</u>	Report to:

STL Burlington208 South Park Drive, Suite 1 Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248	Sludge 0 - Oil Zuplock Pag	Charcoal Tube SL - S /O - Plastic or other	, ,	L - Liquid A - 250 ml - Glass v	'Matrix WW - Wastewater W - Water S - Soil 'Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter	¹Matrix ²Contai
Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.	Client's delivery of samples constitutes acceptance of terms and conditions contained in the Price Schedule.	Time	Date	Time Received by: (Signature	Relinquished by: (Signature) Date	Relin
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		X		PLT-23(10b)	× SHER- WP-	4
		X		T-23		
Lab/Sample ID (Lab Use Only)			VOA A/G 250 P/O	ole(s)	x ¹ Date Time m a Identifying Marks of Sample(s)	Matrix ¹
		IAL Cya	No/Type of Containers ²	rshed	0, 13 Gr	Proj. No.
		me	m	1 Bn Norman	Don Norman	
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Sampler's Signature	Sampler's Name	Samp
For Radioactivity		s_		<u>`</u>	Contract/	Cont
Intact N/Y		_		Fax:	Fax: 425-451-7800	3
dy Seal				Contact:	Contact Jen Kindred	Con
1 2 3 4 5					Bellevue, WA	7
Temp. of coolers		,		Address:	Address: 170 11 Bel-Red Rol Sulk-200	Add
Lab Use Only Due Date:		ANALYSIS REQUESTED		Invoice to:		

STL Burlington 208 South Park Drive, Suite 1 Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

						TISSUE /	Verk an an
Please Fax written changes to (802) 655-1248	طاعك	or othe	P/0 -	,	·/ or o	T A/G-	² Container VOA - 40 ml vial
STL cannot accept verbal changes.			C - Charcoal Tube	I - Liquid A - Air ba	Por S . Soil		/A/A/
Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.	Client's delivery of samples constitutes acceptance of terms and conditions contained in the Price Schedule.	Time	Date	Received by: (Signature	Time	Date	Relinquished by: (Signature)
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Lab/Sample ID (Lab Use Only)		77/0	A A/G 250 P/O	VOA	of Sample(s)	Identifying Marks of Sample(s)	Matrix ¹ Date Time m a
		AL N	No/Type of Containers²	100	Treak Hoberdnew	1	N E
		net.		ton Norman	100	د	1 Jan 1 James
		als		s Signature	Sample		Sampler's Name
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Intact N/Y				one: Fax:	Fax:	7800	Phone: 425-451-1400
Custody Seal N / Y				act:	Contact:	1 C	1
when received (C°): 1 2 3 4 5)SS;	Address:	VA 98005	Address: 12011 Bel Ked Bellowe, WA
Temp. of coolers		יירלטרטירט		ny: Swie		CAN DINA	۱ ۱
Due Date:		ANALYSIS REQUESTED			•	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;) > 2

STL Burlington208 South Park Drive, Suite 1
Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

						C	HSSUC	- Vegetation -	
Please Fax written changes to (802) 655-1248	plack	Plastic or other 2101ach	- Charcoal lube P/O - Plastic	C	L - Liquid A - 250 ml - Glass v	Water S - Soil Amber / Or Glass 1 Liter		WW - Wastewater W	¹ Matrix ² Containe(
delivery of samples constitutes a delivery of samples constitutes and conditions contained in the Pi	Client's d	Time	Date		Received by: (Signature	Time	Date	r. (Signature)	Relinquished by: (Signature)
		Time	Date		Received by: (Signature	Time	Date	r. (Signature)	Relinduished by: (Signature)
	Remarks	Time 093 0	Date 7/27/67		Received by: (Signature	Time	Date 7 23 0	: (Signature)	Relinquished by: (Signature)
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			<u> </u>		24	-PLT-	BUE- WP- PLT-24	×	V 7/24/1300
		X			-20		BUE-OP-PL	×	V2/7
Lab/Sample ID (Lab Use Only)			250 P/O ml	VOA A/G 2		mple(s)	Identifying Marks of Sample(s)	Time m a Identify	Matrix ¹ Date 1
	_	TAL ZN		No/Type of Containers ²	\	Watershed	Cr. Wa	Project Name (13890,16
		Meta	<u> </u>	1	Sampler's Signature	Sampler's	7	Don Norman	Sampler's Name
Screened For Radioactivity		ls_							Contract/ Quote:
Intact N/Y					ltact: lone: Fax:	_ Contact: _ Phone: _ Fax:		425-451-7800 425-451-7400	Contact: Phone:
1 2 3 4 5						· ·	200		W.
Temp. of coolers when received (C°):					1		~	2011 Bel-Red Rd	Address: [20]
Lab Use Only Due Date:		ANALYSIS REQUESTED			Invoice to:	Company:	7	Report to:	F

SEVERN STL

Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

MONU-WP-PLT-15

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 533808

Matrix: SOLID

Client: EASEAT

Date Received: 07/12/03

% Solids: 35.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	07/15/03	N/A	%	1.0		35.2	Quai
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Sample Report Summary

Client Sample No.

MONU-WP-PLT-14

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 533809

Matrix: SOLID

Client: EASEAT

Date Received: 07/12/03

% Solids: 31.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/15/03	N/A	%	1.0		31.5	
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Sample Report Summary

Client Sample No.

EBLK

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 533810

Matrix: WATER

Client: EASEAT

Date Received: 07/12/03

% Solids: 0.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/15/03	N/A	%	1.0		0.0	
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Sample Report Summary

Client Sample No.

CENT-WP-PLT-31

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 533933

Matrix: SOLID

Client: EASEAT

Date Received: 07/15/03

% Solids: 33.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	08/05/03	N/A	%	1.0		33.1	
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Sample Report Summary

Client Sample No.

TILL-WP-PLT-27

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 533934

Matrix: SOLID

Client: EASEAT

Date Received: 07/15/03

% Solids: 36.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	08/05/03	N/A	%	1.0		36.1	- Quai
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Sample Report Summary

Client Sample No.

SHERWPPLT23

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534697

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 31.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DE	RL	Conc.	Qual
IN623	Solids, Percent	07/31/03	N/A	%	1.0		31.0	
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Sample Report Summary

Client Sample No.

SHERWPPLT23(100)

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534698

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 30.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	07/31/03	N/A	%	1.0		30.5	
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Sample Report Summary

Client Sample No.

CAPMWPPLT20

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534699

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 31.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/31/03	N/A	%	1.0		31.9	
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Sample Report Summary

Client Sample No.

GRANBGPLT35

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534700

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 29.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/31/03	N/A	%	1.0		29.5	
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Sample Report Summary

Client Sample No.

GRANBGPLT34

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534701

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 32.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/31/03	N/A	%	1.0		32.5	
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Sample Report Summary

Client Sample No.

GRANBGPLT36

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534702

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 35.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/31/03	N/A	%	1.0		35.6	
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Duplicate Sample Report Summary

Client Sample No.

GRANBGPLT36REP

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 534702DP

Matrix: SOLID

Client: EASEAT

Date Received: 07/18/03

% Solids: 36.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Sam Res Conc.	ult	Dupli Sample Conc.	cate Result Qual.	RPD'
IN623	Solids, Percent	07/31/03	N/A	%	35.6		36.3		2
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^{*} Control Limit for RPD is +/- 20%, unless otherwise specified.

Sample Report Summary

Client Sample No.

AJAXWPPLT08

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535357

Matrix: SOLID

Client: EASEAT

Date Received: 07/22/03

% Solids: 34.2

	Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
	IN623	Solids, Percent	07/29/03	N/A	%	1.0		34.2	
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Sample Report Summary

Client Sample No.

AJAXPDPLT06

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535358

Matrix: SOLID

Client: EASEAT

Date Received: 07/22/03

% Solids: 31.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qua
IN623	Solids, Percent	07/29/03	N/A	%	1.0		31.1	
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Sample Report Summary

Client Sample No.

MAGNWPPLT14

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535359

Matrix: SOLID

Client: EASEAT

Date Received: 07/22/03

% Solids: 34.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	07/29/03	N/A	%	1.0		34.9	
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Sample Report Summary

Client Sample No.

MAGNPDPLT11

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535360

Matrix: SOLID

D Client: EASEAT

Date Received: 07/22/03

% Solids: 32.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		32.5	
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Sample Report Summary

Client Sample No.

LUCABGPLT19

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535361

Matrix: SOLID

Client: EASEAT

Date Received: 07/22/03

% Solids: 32.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		32.5	
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Sample Report Summary

Client Sample No.

MAGNWPPLT17

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535362

Matrix: SOLID

Client: EASEAT

Date Received: 07/22/03

% Solids: 34.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
IN623	Solids, Percent	07/29/03	N/A	%	1.0		34.2	Quai
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Sample Report Summary

Client Sample No.

BLUEWPPLT20

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535819

Matrix: SOLID

Client: EASEAT

Date Received: 07/24/03

% Solids: 39.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		39.9	
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Sample Report Summary

Client Sample No.

BLUEWPPLT24

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535820

Matrix: SOLID

Client: EASEAT

Date Received: 07/24/03

% Solids: 29.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0	· · · · · ·	29.8	
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Sample Report Summary

Client Sample No.

EBLK

Lab Name: STL BURLINGTON

Contract:

SDG No.: GCV001

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535859

Matrix: WATER

Client: EASEAT

Date Received: 07/24/03

% Solids: 0.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	07/29/03	N/A	%	1.0		0.0	
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Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name:	STL BURLINGTON	Contract: <u>23046</u>	
Lab Code:	STLVT Case No.: 23046	SAS No.:SD	G No.: <u>GCV001</u>
SOW No.:	TIMO4 1		
50W NO			
	EPA Sample No.	Lab Sample ID.	
	AJAXPDPLT06	535358	
	AJAXWPPLT08	535357	
	BLUEWPPLT20	535819	
	BLUEWPPLT24	535820	
	CAPMWPPLT20	534699	
	CENT-WP-PLT-31	533933	
	EBLK1	533810	
	EBLK2	535859	
	GRANBGPLT34	534701	
	GRANBGPLT35	534700	
	GRANBGPLT36	534702	
	GRANBGPLT36D	534702DP	
	GRANBGPLT36S	534702MS	
	LUCABGPLT19	535361	
	MAGNPDPLT11	535360	
	MAGNWPPLT14	535359	
	MAGNWPPLT17	535362	
	MONU-WP-PLT-14	533809	
	MONU-WP-PLT-15	533808	
	SHERWPPLT23	534697	
	SHERWPPLT23 (100)	534698	
	TILL-WP-PLT-27	533934	
Were ICP	interelement corrections applie	ed?	Yes/No YES
Were ICP	background corrections applied?)	Yes/No YES
	yes-were raw data generated befo		Yes/No NO
app	lication of background correction	ons?	Tes/No No
Comments:			
	· · · · · · · · · · · · · · · · · · ·		
I certify	that this data package is in c	compliance with the terms and	l conditions of the
contract.	both technically and for compl	eteness, for other than the	conditions detailed
above. F	Release of the data contained in	this hardcopy data package	and in the
computer-	readable data submitted on disk	ette has been authorized by	the Laboratory
Manager o	or the Manager's designee, as ve	rified by the following sign	nature.
Signature	:	Name:	
Date:	ł.	Title:	
			

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

		_	
AJAXPDPI	T06		

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sample ID:	535358
Level (low	/med): LOW	Date Received:	07/22/03

% Solids: 31.1

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	161	+		P
7440-36-0	Antimony	1.4	<u>י</u>	<u> </u>	P
7440-38-2	Arsenic	4.1	1	1	P
7440-39-3	Barium	34.2	В		P
7440-41-7	Beryllium	0.088	В		P
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium	14800		1	P
7440-47-3	Chromium	0.41	U	1	P
7440-48-4	Cobalt	0.61	В		P
7440-50-8	Copper	5.6	В	1	P
7439-89-6	Iron	718	1	1	P
7439-92-1	Lead	1.7		[P
7439-95-4	Magnesium	6560	T	1	P
7439-96-5	Manganese	208		1	P
7439-97-6	Mercury	0.058	В		cv
7440-02-0	Nickel	0.62	ր		P
7440-09-7	Potassium	16200	1	E	P
7782-49-2	Selenium	1.0	U		P
7440-22-4	Silver	0.65	U	1	P
7440-23-5	Sodium	595	В		P
7440-28-0	Thallium	1.7	שן		P
7440-62-2	Vanadium	1.1	В		P
7440-66-6	Zinc	20.6	1	E	P
57-12-5	Cyanide	1.6	ען	N	AS

Color Before:	green	Clarity Before:		Texture:	medium
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXWPPI	30T	

Lab Name:	STL BURLING	TON		Contract: 23046		_	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDC	3 No.:	GCV001
Matrix (so	il/water):	SOLID		Lab Sample	∍ ID: <u>53</u> !	5357	
Level (low	/med): <u>LOV</u>	<u> </u>		Date Recei	ived: <u>07</u>	/22/03	

% Solids: 34.2

	T		Тс	0	м
CAS No.	Analyte	Concentration	-	2	M
7429-90-5	Aluminum	218	+		P
7440-36-0	Antimony	1.4	U	1	P
7440-38-2	Arsenic	20.4	Ī	1	P
7440-39-3	Barium	37.5	В		P
7440-41-7	Beryllium	0.098	В		P
7440-43-9	Cadmium	0.17	U	1	P
7440-70-2	Calcium	16000			P
7440-47-3	Chromium	0.41	טן		P
7440-48-4	Cobalt	0.58	U	}	P
7440-50-8	Copper	6.5	В		P
7439-89-6	Iron	1080	I		P
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium	7170			P
7439-96-5	Manganese	154			P
7439-97-6	Mercury	0.048	ען]	CV
7440-02-0	Nickel	0.61	טן		P
7440-09-7	Potassium	17300		E	P
7782-49-2	Selenium	1.6			P
7440-22-4	Silver	0.64	טן		P
7440-23-5	Sodium	422	B		P
7440-28-0	Thallium	1.7	שן		P
7440-62-2	Vanadium	1.2	В		P
7440-66-6	Zinc	19.5		E	P
57-12-5	Cyanide	1.3	שן	N	AS

Color Before:	green	Clarity Before:		Texture:	medium
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
_					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUEWPPLT20	

Lab Name:	STL BURLING	GTON		Contract: 23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water):	SOLID		Lab Sample ID:	535819
Level (low	/med): <u>LO</u>	<u>w</u>		Date Received:	07/24/03

% Solids: 39.9

Analyte	Concentration	С	Q	м
Aluminum	256			P
Antimony	0.98	ע		P
Arsenic	1.0	טן		P
Barium	308			P
Beryllium	0.080	В		P
Cadmium	0.14	B		P
Calcium	14300	1	1	P
Chromium	0.29	שן		P
Cobalt	0.42	ען]	P
Copper	4.5	В	l	P
Iron	325	1	ĺ	P
Lead	0.31	טן		P
Magnesium	4320	1		P
Manganese	195	1	1	P
Mercury	0.083	1	1	cv
Nickel	0.44	ט		P
Potassium	14000	1	E	P
Selenium	0.99	B	1	P
Silver	0.46	ען		P
Sodium	235	В		P
Thallium	1.2	ע		P
Vanadium	0.81	В		P
Zinc	17.3		E	P
Cyanide	1.2	U	И	AS
	Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	Aluminum 256 Antimony 0.98 Arsenic 1.0 Barium 308 Beryllium 0.080 Cadmium 0.14 Calcium 14300 Chromium 0.29 Cobalt 0.42 Copper 4.5 Iron 325 Lead 0.31 Magnesium 4320 Manganese 195 Mercury 0.083 Nickel 0.44 Potassium 14000 Selenium 0.99 Silver 0.46 Sodium 235 Thallium 1.2 Vanadium 0.81 Zinc 17.3	Aluminum 256	Aluminum 256

Color Before:	green	Clarity Before:		Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUEWPPLT	124	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	ll/water): SOLID	Lab Sample ID:	535820
Level (low,	med): LOW	Date Received:	07/24/03

% Solids: 29.8

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	273			P
7440-36-0	Antimony	1.4	טן		P
7440-38-2	Arsenic	1.5	שן		P
7440-39-3	Barium	72.3		İ	P
7440-41-7	Beryllium	0.13	В		P
7440-43-9	Cadmium	0.18	מן		P
7440-70-2	Calcium	13000	1		P
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt	0.62	שן		P
7440-50-8	Copper	5.3	В		P
7439-89-6	Iron	431			P
7439-92-1	Lead	0.99	1		P
7439-95-4	Magnesium	5180	T		P
7439-96-5	Manganese	75.9	1		P
7439-97-6	Mercury	0.056	ע		cv
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	15000		E	P
7782-49-2	Selenium	1.0	ע		P
7440-22-4	Silver	0.68	Įΰ		P
7440-23-5	Sodium	321	В		P
7440-28-0	Thallium	1.8	טן		P
7440-62-2	Vanadium	1.2	В		P
7440-66-6	Zinc	39.1	1	E	P
57-12-5	Cyanide	1.7	Ū	И	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
<u></u>					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CAPMWPPL	r20

Lab Name:	STL BURLING	TON	Contract: 23046	
Lab Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water):	SOLID	Lab Sample ID:	534699
Level (low	/med): <u>LOV</u>	T	Date Received:	07/18/03

% Solids: 31.9

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	257	┼		 P
7440-36-0	Antimony	1.2	jυ	Ì	l P
7440-38-2	Arsenic	1.2	i u	<u>.</u>	I P
7440-39-3	Barium	231	i	i	P
7440-41-7	Beryllium	0.096	В	i	P
7440-43-9	Cadmium	0.15	ָ ט	1	P
7440-70-2	Calcium	12700	i	1	P
7440-47-3	Chromium	0.36	<u>י</u>	i	P
7440-48-4	Cobalt	0.51	ju	ĺ	P
7440-50-8	Copper	4.6	B	İ	P
7439-89-6	Iron	262	i	İ	P
7439-92-1	Lead	0.50	B	Ī	P
7439-95-4	Magnesium	4030	İ		P
7439-96-5	Manganese	162	1	Ī	P
7439-97-6	Mercury	0.063	B	I	CV
7440-02-0	Nickel	0.54	U	Ī	P
7440-09-7	Potassium	15900	1	E	P
7782-49-2	Selenium	0.87	U	İ	P
7440-22-4	Silver	0.56	טן		P
7440-23-5	Sodium	289	В		P
7440-28-0	Thallium	1.5	U		P
7440-62-2	Vanadium	0.76	B	-	P
7440-66-6	Zinc	16.7	ĺ	E	P
57-12-5	Cyanide	1.6	ען	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

					_	
CENT-	WP-	-PL	T-	3	1	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so:	il/water): SOLID	Lab Sample ID:	533933
Level (low	/med): LOW	Date Received:	07/15/03

% Solids: 33.1

				· · · · · · · · · · · · · · · · · · ·	
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	251			P
7440-36-0	Antimony	1.3	ש	}	P
7440-38-2	Arsenic	1.4	שן		P
7440-39-3	Barium	290	Ι]	P
7440-41-7	Beryllium	0.13	В]	P
7440-43-9	Cadmium	0.85	В		P
7440-70-2	Calcium	17800	1		P
7440-47-3	Chromium	1.7	В		P
7440-48-4	Cobalt	0.57	ט	1	P
7440-50-8	Copper	6.1	В	}	P
7439-89-6	Iron	409			P.
7439-92-1	Lead	2.1		I	P
7439-95-4	Magnesium	5310			P
7439-96-5	Manganese	191			P
7439-97-6	Mercury	0.092	В	1	cv
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	15100		E	P
7782-49-2	Selenium	0.97	טן		P
7440-22-4	Silver	0.63	Įΰ		P
7440-23-5	Sodium	338	В		P
7440-28-0	Thallium	1.6	U	1	P
7440-62-2	Vanadium	0.97	В		P
7440-66-6	Zinc	43.7		E	P
57-12-5	Cyanide	1.6	טן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EBLK1	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sampl	e ID: <u>533810</u>
Level (low,	/med): LOW	Date Rece	eived: 07/12/03

% Solids: 100.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	2.4	Ū		P
7440-36-0	Antimony	0.47	שן		P
7440-38-2	Arsenic	0.48	שן	ļ	P
7440-39-3	Barium	0.59	ր		P
7440-41-7	Beryllium	0.044	В		P
7440-43-9	Cadmium	0.060	שן		P
7440-70-2	Calcium	18.2	ען	1	P
7440-47-3	Chromium	0.14	U		P
7440-48-4	Cobalt	0.20	U		P
7440-50-8	Copper	0.24	U		P
7439-89-6	Iron	3.3	U	1	P
7439-92-1	Lead	0.19	В		P
7439-95-4	Magnesium	17.8	ע		P
7439-96-5	Manganese	0.070	ע		P
7439-97-6	Mercury	0.017	ען		cv
7440-02-0	Nickel	0.21	U		P
7440-09-7	Potassium	39.3	U	E	P
7782-49-2	Selenium	0.34	ש	1	P
7440-22-4	Silver	0.22	ע		P
7440-23-5	Sodium	124	В	1	P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	0.20	U	l	P
7440-66-6	Zinc	0.21	В	E	P

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EBLK2	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	<u>STLVT</u> Case No.: <u>23046</u>	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sample ID:	535859
Level (low	/med): LOW	Date Received:	07/24/03

% Solids: 100.0

CAS No.	Analyte	Concentration	С	Q	М
			1,,	ļ	<u> </u>
7429-90-5	Aluminum	2.4	U	<u> </u>	P
7440-36-0	Antimony	0.47	שן	<u></u>	P
7440-38-2	Arsenic	0.48	שן		P
7440-39-3	Barium	0.59	լս	1	P
7440-41-7	Beryllium	0.045	В		P
7440-43-9	Cadmium	0.060	լս		P
7440-70-2	Calcium	18.2	Įυ		P
7440-47-3	Chromium	0.14	Įυ		P
7440-48-4	Cobalt	0.20	ט		P
7440-50-8	Copper	0.24	טן		P
7439-89-6	Iron	3.3	ען		P
7439-92-1	Lead	0.38			P
7439-95-4	Magnesium	17.8	טן		P
7439-96-5	Manganese	0.070	Įυ	1	P
7439-97-6	Mercury	0.016	טן		CV
7440-02-0	Nickel	0.21	שן	1	P
7440-09-7	Potassium	39.3	שן	E	P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	115	B	1	P
7440-28-0	Thallium	0.57	ען		P
7440-62-2	Vanadium	0.20	U		P
7440-66-6	Zinc	0.12	В	E	P
57-12-5	Cyanide	0.49	שן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGPLT34	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sample ID:	534701
Level (low	/med): LOW	Date Received:	07/18/03

% Solids: 32.5

CAS No.	Analyte	Concentration	Тс	0	М
CAS NO.	12.02700			~	-
7429-90-5	Aluminum	143			P
7440-36-0	Antimony	1.2	טן	1	P
7440-38-2	Arsenic	1.2	U		P
7440-39-3	Barium	341	1.		P
7440-41-7	Beryllium	0.071	В	-	P
7440-43-9	Cadmium	0.37	В	1	P
7440-70-2	Calcium	13300	1	1	P
7440-47-3	Chromium	0.36	ր		P
7440-48-4	Cobalt	0.51	שן	l	P
7440-50-8	Copper	4.3	B	1	P
7439-89-6	Iron	181			P
7439-92-1	Lead	1.1			P
7439-95-4	Magnesium	4280		ļ	P
7439-96-5	Manganese	262	<u> </u>		P
7439-97-6	Mercury	0.045	טן		cv
7440-02-0	Nickel	0.53	լս		P
7440-09-7	Potassium	16800		E	P
7782-49-2	Selenium	0.86	טן		P
7440-22-4	Silver	0.56	טן		P
7440-23-5	Sodium	311	В		P
7440-28-0	Thallium	1.4	טן		P
7440-62-2	Vanadium	0.51	U		P
7440-66-6	Zinc	18.1		E	P
57-12-5	Cyanide	1.4	טן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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GRA	NBC	PL	т3	5

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (soil/water): SOLID	Lab Sample ID:	534700
Level (low/med): LOW	Date Received:	07/18/03
% Solids: 29.5		

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	312	1		P
7440-36-0	Antimony	1.3	שן		P
7440-38-2	Arsenic	1.3	ען	1	P
7440-39-3	Barium	368	1		P
7440-41-7	Beryllium	0.12	В		P.
7440-43-9	Cadmium	0.16	ĺα	<u> </u>	P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	0.37	שן	1	P
7440-48-4	Cobalt	0.53	ט		P
7440-50-8	Copper	4.6	В		P
7439-89-6	Iron	315			P
7439-92-1	Lead	0.91			P
7439-95-4	Magnesium	4290			P
7439-96-5	Manganese	202			P
7439-97-6	Mercury	0.052	טן		CV
7440-02-0	Nickel	0.56	ប		P
7440-09-7	Potassium	19600		E	P
7782-49-2	Selenium	1.2	В		P
7440-22-4	Silver	0.59	ט	1	P
7440-23-5	Sodium	340	В	1	P
7440-28-0	Thallium	1.5	שן		P
7440-62-2	Vanadium	0.94	В	1	P
7440-66-6	Zinc	14.2		E	P
57-12-5	Cyanide	1.6	טן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts: _	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANBGPL	T36	

Lab Name:	STL BURLINGTO	N		Contract:	23046		•
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCV001
Matrix (so	il/water): SC	LID		Lab	Sample ID:	534702	
Level (low	/med): LOW			Dat	e Received:	07/18/03	
		-					

% Solids: 35.6

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CAS No.	Analyte	Concentration	С	Ω	M
7429-90-5	Aluminum	213		Ì	P
7440-36-0	Antimony	1.0	שן		P
7440-38-2	Arsenic	1.1	שן	1	P
7440-39-3	Barium	505		1	P
7440-41-7	Beryllium	0.054	В	1	P
7440-43-9	Cadmium	0.13	U		P
7440-70-2	Calcium	17300			P
7440-47-3	Chromium	0.31	U	l	P
7440-48-4	Cobalt	0.44	Ū	ļ	P
7440-50-8	Copper	4.8	В		P
7439-89-6	Iron	247			P
7439-92-1	Lead	0.38	В		P
7439-95-4	Magnesium	4570	I		P
7439-96-5	Manganese	324	1		P
7439-97-6	Mercury	0.045	U		CV
7440-02-0	Nickel	0.46	U		P
7440-09-7	Potassium	16200		E	P
7782-49-2	Selenium	0.95	B		P
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	285	В		P
7440-28-0	Thallium	1.3	טן		P
7440-62-2	Vanadium	0.60	B	1	P
7440-66-6	Zinc	13.4		E	P
57-12-5	Cyanide	1.4	U	И	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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	LUCABGPLT19	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	<u>STLVT</u> Case No.: <u>23046</u>	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sample ID:	535361
Level (low	/med): LOW	Date Received:	07/22/03

% Solids: 32.5

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	72.7			P
7440-36-0	Antimony	1.2	שן		P
7440-38-2	Arsenic	1.3	מן		P
7440-39-3	Barium	252			P
7440-41-7	Beryllium	0.12	В		P
7440-43-9	Cadmium	0.16	ր		P
7440-70-2	Calcium	12400	T		P
7440-47-3	Chromium	0.37	ען		P
7440-48-4	Cobalt	0.52	U		P
7440-50-8	Copper	5.7	В		P
7439-89-6	Iron	132		J	P
7439-92-1	Lead	1.1		j .	P
7439-95-4	Magnesium	4330			P
7439-96-5	Manganese	238			P
7439-97-6	Mercury	0.051	שן		CV
7440-02-0	Nickel	0.55	Մ	l	P
7440-09-7	Potassium	16500		E	P
7782-49-2	Selenium	1.4	1	ļ	P
7440-22-4	Silver	0.57	U		P
7440-23-5	Sodium	330	В	1	P
7440-28-0	Thallium	1.5	ր		P
7440-62-2	Vanadium	0.52	ען		P
7440-66-6	Zinc	21.4		E	P
57-12-5	Cyanide	1.5	טן	И	AS

Color Before:	green	Clarity Before:		Texture:	medium
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNPD	PLT11	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	<u>STLVT</u> Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (soi	ll/water): SOLID	Lab Sample ID:	535360
Level (low,	/med): LOW	Date Received:	07/22/03

% Solids: 32.5

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	290			P
7440-36-0	Antimony	1.4	U		P
7440-38-2	Arsenic	8.1			P
7440-39-3	Barium	86.7	T		P
7440-41-7	Beryllium	0.12	В		P
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium	14000			P
7440-47-3	Chromium	0.43	שן		P
7440-48-4	Cobalt	0.62	ט		P
7440-50-8	Copper	5.8	В		P
7439-89-6	Iron	679			P
7439-92-1	Lead	1.7			P
7439-95-4	Magnesium	5200			P
7439-96-5	Manganese	95.3			P
7439-97-6	Mercury	0.064	В		cv
7440-02-0	Nickel	0.65	U		P
7440-09-7	Potassium	16200		E	P
7782-49-2	Selenium	1.0	טן		P
7440-22-4	Silver	0.68	ט		P
7440-23-5	Sodium	342	В		P
7440-28-0	Thallium	1.8	טן		P
7440-62-2	Vanadium	1.3	В		P
7440-66-6	Zinc	27.0	1_	E	P
57-12-5	Cyanide	1.5	טן	N	AS

Color Before:	green	Clarity Before:		Texture:	medium
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPI	LT14	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sample ID:	535359
Level (low	/med): LOW	Date Received:	07/22/03
0 0-1:3	24 0		

CAS No.	Analyte	Concentration	C.	Q	М
7429-90-5	Aluminum	157			P
7440-36-0	Antimony	1.3	שן		P
7440-38-2	Arsenic	3.0	1		P
7440-39-3	Barium	123			P
7440-41-7	Beryllium	0.12	В		P
7440-43-9	Cadmium	0.17	U	ļ	P
7440-70-2	Calcium	15200	1		P
7440-47-3	Chromium	0.39	שן		P
7440-48-4	Cobalt	0.55	שן	1	P
7440-50-8	Copper	6.8	В		P
7439-89-6	Iron	338			P
7439-92-1	Lead	0.91			P
7439-95-4	Magnesium	6130			P
7439-96-5	Manganese	113		1	P
7439-97-6	Mercury	0.047	שן	1	CV
7440-02-0	Nickel	0.58	ען		P
7440-09-7	Potassium	14600	1	E	P
7782-49-2	Selenium	1.6	Ī		P
7440-22-4	Silver	0.61	Մ		P
7440-23-5	Sodium	292	В		P
7440-28-0	Thallium	1.6	טן		P
7440-62-2	Vanadium	0.65	В		P
7440-66-6	Zinc	22.3		E	P
57-12-5	Cyanide	1.4	ט	N	AS

Color Before:	green	Clarity Before:		Texture:	medium
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:	P. L. Prop.				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNWPPL	T17	

Lab Name:	STL BURLING	TON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCV001
Matrix (so	il/water):	SOLID		Lab	Sample ID:	535362	
Level (low	/med): <u>LOV</u>	V		Dat	e Received:	07/22/03	

% Solids: 34.2

CAS No.	Analyte	Concentration	С	Ω	M·
7429-90-5	Aluminum	409	 		P
7440-36-0	Antimony	1.3	B		P
7440-38-2	Arsenic	2.9	T		P
7440-39-3	Barium	277			P
7440-41-7	Beryllium	0.13	В		P
7440-43-9	Cadmium	0.30	В		P
7440-70-2	Calcium	15000	T		P
7440-47-3	Chromium	0.39	U	1	P
7440-48-4	Cobalt	0.56	U		P
7440-50-8	Copper	6.1	В	<u> </u>	P
7439-89-6	Iron	692			P
7439-92-1	Lead	1.1			P
7439-95-4	Magnesium	6250		1	P
7439-96-5	Manganese	212			P
7439-97-6	Mercury	0.047	ש		cv
7440-02-0	Nickel	0.59	U		P
7440-09-7	Potassium	14000		E	P
7782-49-2	Selenium	1.4	1		P
7440-22-4	Silver	0.62	ט		P
7440-23-5	Sodium	317	В		P
7440-28-0	Thallium	1.6	U		P
7440-62-2	Vanadium	1.6	В	1	P
7440-66-6	Zinc	20.9		E	P
57-12-5	Cyanide	1.4	טן	N	AS

Color Before:	green	Clarity Before:		Texture:	medium
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MONU-WP-	PLT-14

Lab Name:	STL BURLINGTON	Contract:	23046		
Lab Code:	STLVT Case No.	: <u>23046</u> SAS No	·:	SDG No.:	GCV001
Matrix (so	il/water): SOLID	La	ab Sample ID:	533809	·····
Level (low	/med): LOW	Da	ate Received:	07/12/03	

% Solids: 31.5

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	220			P
7440-36-0	Antimony	1.3	U		P
7440-38-2	Arsenic	10.6	1	1	P
7440-39-3	Barium	86.3			P
7440-41-7	Beryllium	0.16	В		P
7440-43-9	Cadmium	1.0	B	[P
7440-70-2	Calcium	12000	Ī		P
7440-47-3	Chromium	0.38	Įΰ		P
7440-48-4	Cobalt	0.54	שן	j	P
7440-50-8	Copper	5.0	B	1	P
7439-89-6	Iron	642			P
7439-92-1	Lead	2.7			P
7439-95-4	Magnesium	4640			P
7439-96-5	Manganese	118	T_]	P
7439-97-6	Mercury	0.052	U		cv
7440-02-0	Nickel	0.57	U	1	P
7440-09-7	Potassium	15900		E	P
7782-49-2	Selenium	0.92	שן		P
7440-22-4	Silver	0.60	IJ		P
7440-23-5	Sodium	381	В	1	P
7440-28-0	Thallium	1.5	טן	1	P
7440-62-2	Vanadium	1.2	В		P
7440-66-6	Zinc	53.6		E	P
57-12-5	Cyanide	1.5	טן	N	AS

Color Before:	green	Clarity Before:		Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:	:			

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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1	MONU-WP-	PLT-	15	

Lab Name:	STL BURLING	ron		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCV001
Matrix (so	il/water):	SOLID		Lab	Sample ID:	533808	
Level (low	/med): LOW	,		Dat	e Received:	07/12/03	

% Solids: 35.2

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	206			P
7440-36-0	Antimony	1.3	ט	1	P
7440-38-2	Arsenic	6.1			P
7440-39-3	Barium	51.9	В		P
7440-41-7	Beryllium	0.13	В		P
7440-43-9	Cadmium	0.78	В		P
7440-70-2	Calcium	9750			P
7440-47-3	Chromium	0.38	שן		P
7440-48-4	Cobalt	0.55	U		P
7440-50-8	Copper	5.1	В		P
7439-89-6	Iron	535			P
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium	4500			P
7439-96-5	Manganese	169			P
7439-97-6	Mercury	0.046	U		cv
7440-02-0	Nickel	0.57	טן		P
7440-09-7	Potassium	14900		E	P
7782-49-2	Selenium	0.93	ĺū	Ī	P
7440-22-4	Silver	0.60	טן		P
7440-23-5	Sodium	428	В		P
7440-28-0	Thallium	1.6	ט		P
7440-62-2	Vanadium	0.95	В		P
7440-66-6	Zinc	35.9		E	P
57-12-5	Cyanide	1.3	Įΰ	И	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SHERWPPL	T23	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so:	il/water): SOLID	Lab Sample ID:	534697
Level (low	/med): LOW	Date Received:	07/18/03

% Solids: 31.0

	Analyte	Concentration	C	0	м
CAS No.	Analyce	Concentration		_	**
7429-90-5	Aluminum	153	ĺ	1	P
7440-36-0	Antimony	1.2	שן		P
7440-38-2	Arsenic	1.3	U		P
7440-39-3	Barium	247	1		P
7440-41-7	Beryllium	0.11	В		P
7440-43-9	Cadmium	0.50	В		P
7440-70-2	Calcium	12200			P
7440-47-3	Chromium	0.37	טן		P
7440-48-4	Cobalt	0.53	שן		P
7440-50-8	Copper	4.6	В	<u> </u>	P
7439-89-6	Iron	197	1		P
7439-92-1	Lead	1.3	Ī		P
7439-95-4	Magnesium	4690			P
7439-96-5	Manganese	291	1		P
7439-97-6	Mercury	0.050	В		CV
7440-02-0	Nickel	0.56	טן		P
7440-09-7	Potassium	16700		ļΕ	P
7782-49-2	Selenium	0.91	B		P
7440-22-4	Silver	0.58	ע	1	P
7440-23-5	Sodium	370	В		P
7440-28-0	Thallium	1.5	ט		P
7440-62-2	Vanadium	0.81	В		P
7440-66-6	Zinc	27.2		E	P
57-12-5	Cyanide	1.6	שן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SHERWPPI	T23	(100)	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (so	il/water): SOLID	Lab Sample ID:	534698
Level (low	/med): LOW	Date Received:	07/18/03
% Solids:	30.5		

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	206	+		P
7440-36-0	Antimony	1.3	שן		P
7440-38-2	Arsenic	1.3	שן		P
7440-39-3	Barium	253			P
7440-41-7	Beryllium	0.10	В		P
7440-43-9	Cadmium	0.58	B		P
7440-70-2	Calcium	12600]	P
7440-47-3	Chromium	0.39	שן]	P
7440-48-4	Cobalt	0.55	U		P
7440-50-8	Copper	5.0	В		P
7439-89-6	Iron	260	1	1	P
7439-92-1	Lead	1.3			P
7439-95-4	Magnesium	5060			P
7439-96-5	Manganese	283	Ī		P
7439-97-6	Mercury	0.049	В	1	cv
7440-02-0	Nickel	0.58	שן	ŀ	P
7440-09-7	Potassium	17300	1	E	P
7782-49-2	Selenium	1.0	В		P
7440-22-4	Silver	0.67	В	1	P
7440-23-5	Sodium	374	B]	P
7440-28-0	Thallium	1.6	U		P
7440-62-2	Vanadium	0.71	B	1	P
7440-66-6	Zinc	28.4		E	P
57-12-5	Cyanide	1.7	שן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:		. Ava			

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TILL-WP-	PLT-27	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Matrix (soi	11/water): SOLID	Lab Sample ID:	533934
Level (low,	med): LOW	Date Received:	07/15/03

% Solids: 36.1

CAS No.	Analyte	Concentration	С	Q	м
	_		<u> </u>		
7429-90-5	Aluminum	284			P
7440-36-0	Antimony	0.94	ט		P
7440-38-2	Arsenic	1.0	B	ļ	P
7440-39-3	Barium	272			P
7440-41-7	Beryllium	0.087	В		P
7440-43-9	Cadmium	2.6			P
7440-70-2	Calcium	20000			P
7440-47-3	Chromium	0.48	B		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	5.0	1		P
7439-89-6	Iron	427		1	P
7439-92-1	Lead	2.7		1	P
7439-95-4	Magnesium	4120	1		P
7439-96-5	Manganese	158			P
7439-97-6	Mercury	0.070	B		CV
7440-02-0	Nickel	0.42	שן		P
7440-09-7	Potassium	13700		E	P
7782-49-2	Selenium	0.70	B		P
7440-22-4	Silver	0.44	U		P
7440-23-5	Sodium	262	B		P
7440-28-0	Thallium	1.1	שן		P
7440-62-2	Vanadium	0.90	В		P
7440-66-6	Zinc	70.2	1	E	P
57-12-5	Cyanide	1.1	שן	N	AS

Color Before:	green	Clarity Before:		Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046	
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Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibration		Continuing Calibr	ration	
Analyte	True	Found %R(1)	True	Found %R(1)	Found %R(1)	м
Aluminum	26000.0	25370.00 97.6	30200.0	29720.00 98.4	29580.00 97.9	P
Antimony	250.0	256.50 102.6	300.0	314.20 104.7	311.80 103.9	P
Arsenic	250.0	255.50 102.2	100.0	104.80 104.8		
Barium	500.0	501.80 100.4	200.0	201.40 100.7	200.90 100.4	P
Beryllium	500.0	509.20 101.8	100.0	99.83 99.8	99.87 99.9	P
Cadmium	500.0	497.10 99.4	100.0	100.10 100.1	99.63 99.6	P
Calcium	25000.0	24860.00 99.4	30200.0	29850.00 98.8	29650.00 98.2	P
Chromium	500.0	500.60 100.1	200.0	195.30 97.6	194.20 97.1	P
Cobalt	500.0	495.90 99.2	200.0	200.80 100.4	200.40 100.2	P
Copper	500.0	509.90 102.0	200.0	204.10 102.0	204.60 102.3	P
Iron	25500.0	25380.00 99.5	30200.0	29790.00 98.6	29670.00 98.2	Р
Lead	1000.0	1008.00 100.8	400.0	401.60 100.4	398.60 99.6	Р
Magnesium	25000.0	24570.00 98.3	30200.0	29670.00 98.2	29560.00 97.9	Р
Manganese	500.0	498.10 99.6	200.0	199.40 99.7	198.60 99.3	P
Mercury	3.0	3.00 100.0	5.0	5.49 109.8	5.43 108.6	CV
Nickel	500.0	497.70 99.5	200.0	194.60 97.3	193.70 96.8	P
Potassium	25000.0	25180.00 100.7	30200.0	31200.00 103.3	31120.00 103.0	P
Selenium	250.0	247.60 99.0	100.0	99.67 99.7	100.80 100.8	P
Silver	500.0	498.80 99.8	100.0	104.00 104.0	104.10 104.1	P
Sodium	25000.0	23780.00 95.1	30200.0	28960.00 95.9	28980.00 96.0	P
Thallium	250.0	244.30 97.7	100.0	107.10 107.1	103.60 103.6	P
Vanadium	500.0	498.60 99.7	200.0	201.00 100.5	201.10 100.6	P
Zinc	500.0	505.70 101.1	200.0	202.30 101.2	202.30 101.2	P
Cyanide	120.0	109.26 91.0	150.0	152.87 101.9	154.97 103.3	AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name:	STL BURLING	TON		Contract: 23046	
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCV001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial C	alibrati	on	(Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	29140.00	96.5	29670.00	98.2	P
Antimony				300.0	305.40	101.8	314.30	104.8	₽
Arsenic	İ			100.0	100.30	100.3	102.50	102.5	P
Barium	1			200.0	198.30	99.2	201.50	100.8	P
Beryllium ·	Ī			100.0	98.84	98.8	100.50	100.5	P
Cadmium				100.0	98.51	98.5	100.60	100.6	P
Calcium				30200.0	29220.00	96.8	29860.00	98.9	Р
Chromium				200.0	191.10	95.6	195.10	97.6	Р
Cobalt				200.0	197.20	98.6	201.00	100.5	P
Copper				200.0	201.50	100.8	205.10	102.6	Р
Iron				30200.0	29240.00	96.8	29810.00	98.7	P
Lead				400.0	393.00	98.2	399.90	100.0	P
Magnesium				30200.0	29150.00	96.5	29730.00	98.4	P
Manganese				200.0	195.80	97.9	199.50	99.8	P
Nickel				200.0	191.70	95.8	194.00	97.0	P
Potassium				30200.0	30700.00	101.7	31210.00	103.3	P
Selenium				100.0	98.70	98.7	98.43	98.4	Р
Silver				100.0	102.80	102.8	104.20	104.2	₽
Sodium	1			30200.0	28930.00	95.8	28860.00	95.6	₽
Thallium				100.0	97.33	97.3	101.70	101.7	₽
Vanadium	1			200.0	197.40	98.7	200.80	100.4	P
Zinc				200.0	199.70	99.8	203.60	101.8	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLIN	IGTON			Contract: 23046		
Lab	Code:	STLVT	Case	No.:	23046	SAS No.:	SDG No.:	GCV001
Ini	tial Ca	libration	Source: 1	Inorga	nic Ven	tures/Fisher		
Con	tinuino	r Calibrati	on Source	e: SPE	X/Fisher	r		

	Initial C	alibrati	on	(Continuing	Calibra	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum	1		1	30200.0	29210.00	96.7			P
Antimony				300.0	305.60	101.9			P
Arsenic			<u> </u>	100.0	99.66	99.7			P
Barium				200.0	198.40	99.2			P
Beryllium	· _			100.0	98.54	98.5			P
Cadmium			1	100.0	98.29	98.3			P
Calcium				30200.0	29370.00	97.3			P
Chromium				200.0	194.10	97.0			P
Cobalt	ı			200.0	197.70	98.8			P
Copper	1		1	200.0	201.70	100.8			P
Iron	1			30200.0	29280.00	97.0			P
Lead	I			400.0	392.50	98.1			P
Magnesium				30200.0	29170.00	96.6			P
Manganese				200.0	196.80	98.4			P
Nickel			Ī	200.0	197.60	98.8			P
Potassium				30200.0	30650.00	101.5			P
Selenium			Ī	100.0	99.94	99.9			P
Silver	ı			100.0	102.80	102.8			P
Sodium	1		1	30200.0	28500.00	94.4			P
Thallium	1			100.0	100.20	100.2			P
Vanadium				200.0	197.60	98.8			P
Zinc				200.0	199.70	99.8			P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial (Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found %	R(1)	м
Lead	1000.0	987.40 98.7	400.0	393.20	98.3	387.40	96.8	P
Mercury	3.0	2.96 98.7	5.0	5.43	108.6	5.33	106.6	cv
Cyanide	120.0	129.19 107.7	150.0	147.38	98.3	148.86	99.2	AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab :	Name: _	STL BURLIN	IGTON		Contract: 23046		_
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCV001	
Init	ial Ca	libration	Source: Inorga	nic Vent	cures/Fisher		
Cont	inuing	Calibrati	on Source: SPE	X/Fisher	•		

Concentration Units: ug/L

	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М	
Lead			400.0	384.80	96.2	390.3	97.6	P	
Cyanide			150.0	146.51	97.7			AS	

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLIN	igton		_Contract: 23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCV001	
Initial Ca	alibration	Source: Inorga	nic Vent	ures/Fisher		
Continuin	g Calibrati	on Source: SPE	X/Fisher			

Concentration Units: ug/L

	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м	
Lead			400.0	391.00	97.8			P	

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher_____

	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М	
Lead	1000.0	956.30 95.6	400.0	378.50	94.6	388.70	97.2	P	
Mercury	3.0	3.06 102.0	5.0	5.05	101.0	4.68	93.6	cv	
Cyanide	120.0	119.46 99.6	150.0	141.85	94.6	140.20	93.5	AS	

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLIN	NGTON		_Contract: 23046	
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCV001
Initial Ca	alibration	Source: Inorga	nic Vent	ures/Fisher	
Continuin	g Calibrati	on Source: SPE	X/Fisher	•	

Concentration Units: ug/L

			Calibration	on	С	ontinuing	Calibra	ation		
Analyte	Tr	ie 	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Lead	i				400.0	385.00	96.2			P
Mercury					5.0	4.92	98.4	4.8	2 96.4	cv
Cyanide	1				150.0	143.25	95.5			AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibratio	n	(Continuing	Calibra	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	26000.0	26350.00	101.3	30200.0	30440.00	100.8	30260.00	100.2	Р
Antimony	250.0	250.60	100.2	300.0	303.90	101.3	303.20	101.1	P
Arsenic	250.0	245.90	98.4	100.0	98.91	98.9		101.2	
Barium	500.0	493.60	98.7	200.0	201.70	100.8	201.00	100.5	Р
Beryllium	500.0	501.00	100.2	100.0	99.94	99.9		100.7	•
Cadmium	500.0	490.30	98.1	100.0	98.85	98.8	99.80	L	-
Calcium	25000.0	25630.00	102.5	30200.0	30640.00	101.5	30850.00	102.2	P
Chromium	500.0	498.00	99.6	200.0	199.20	99.6	200.20	100.1	P
Cobalt	J 500.0	489.90	98.0	200.0	199.30	99.6	200.00	100.0	Р
Copper	500.0	502.50	100.5	200.0	204.60	102.3	204.20	102.1	Р
Iron	25500.0	26480.00	103.8	30200.0	30510.00	101.0	30670.00	101.6	P
Lead	1000.0	987.60	98.8	400.0	392.70	98.2	397.60	99.4	P
Magnesium	25000.0	25590.00	102.4	30200.0	30310.00	100.4	30550.00	101.2	P
Manganese	500.0	491.60	98.3	200.0	199.80	99.9	200.00	100.0	P
Mercury	J 3.0	2.97	99.0	5.0	4.83	96.6	4.63	92.6	CV
Nickel	500.0	495.00	99.0	200.0	198.00	99.0	198.20	99.1	P
Potassium	25000.0	26340.00	105.4	30200.0	31580.00	104.6	31430.00	104.1	P
Selenium	250.0	242.10	96.8	100.0	100.10	100.1	99.95	100.0	P
Silver	500.0	497.80	99.6	100.0	100.90	100.9	101.70	101.7	P
Sodium	25000.0	25240.00	101.0	30200.0	29430.00	97.5	29560.00	97.9	P
Thallium	250.0	236.00	94.4	100.0	97.47	97.5	96.25	96.2	P
Vanadium	500.0	495.50	99.1	200.0	201.10	100.6	201.70	100.8	P
Zinc	500.0	500.90	100.2	200.0	202.70	101.4	204.00	102.0	P
Cyanide	120.0	122.17	101.8	150.0	148.25	98.8	153.71	102.5	AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLING	TON		_Contract: 23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: G	CV001
Initial Ca	alibration S	ource: Inorga	anic Vent	ures/Fisher		
a+	- Callibratio	n Coungo: CDI	EV/Eichor			

	Initial (Calibrati	on	(Continuing	Calibra	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	30560.00	101.2			P
Antimony				300.0	305.30	101.8			P
Arsenic	1			100.0	102.20	102.2			P
Barium				200.0	201.80	100.9			P
Beryllium	1			100.0	100.30	100.3		<u>. </u>	P
Cadmium				100.0	99.55	99.6			P
Calcium				30200.0	30970.00	102.5			P
Chromium	l			200.0	200.20	100.1			P
Cobalt				200.0	199.50	99.8			P
Copper				200.0	206.20	103.1			P
Iron	1			30200.0	30690.00	101.6			P
Lead				400.0	396.50	99.1			₽
Magnesium				30200.0	30610.00	101.4			P
Manganese				200.0	199.80	99.9			P
Mercury				5.0	4.67	93.4			CV
Nickel				200.0	199.10	99.6			P
Potassium	T T		Ī	30200.0	32060.00	106.2			P
Selenium			Ì	100.0	101.80	101.8			P
Silver				100.0	101.30	101.3			P
Sodium	1			30200.0	29660.00	98.2			P
Thallium	1		Ī	100.0	98.77	98.8			P
Vanadium			l	200.0	201.20	100.6			P
Zinc			i	200.0	204.50	102.2			P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab :	Name: _	STL BURLINGTO)N		Contract: 23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GC	W001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

Initial Calibration Continuing Calibration								
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Mercury	3.0	2.82 94.0	5.0	4.90	98.0	4.7	1 94.2	cv
Cyanide	120.0	117.46 97.9	150.0	140.94	94.0	143.6	7 95.8	AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	Name: STL BURLINGTON			_Contract: 23046		_
Lab Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.: GCV001	
Initial Ca	alibration	Source: Inorga	nic Vent	ures/Fisher		
Continuin	g Calibrati	on Source: SPE	X/Fisher	•		

Concentration Units: ug/L

	Initial	Calibration	Co	ntinuing	Calibra	ation		
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Mercury			5.0	4.61	92.2			cv
Cyanide			150.0	142.40	94.9	142.75	95.2	AS

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name:	STL	BURLINGTON	Contract:	23046
uav	riame.	914	DOIGHTHOTON		

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial C	alibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м	
Mercury	3.0	2.73 91.0	5.0	4.93	98.6	4.7	7 95.4	cv	

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: <u>S</u>	TL BURLINGTON		···	_Contract: 23046	
Lab Code: S	Cas Cas	e No.:	23046	SAS No.:	SDG No.: GCV001
Initial Cal:	ibration Source:	Inorga	nic Vent	cures/Fisher	
Continuing	Calibration Sour	ce: SPE	X/Fisher		
			Concen	tration Units: ug/L	

:	Initial	Calibration	Continuing Calibration						
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М	
Mercury			5.0	4.87	97.4	4.8	5 97.0	cv	

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTON	Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

AA CRDL Standard Source: Inorganic Ventures

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

					CRDL Star	dard		_	
				Ini	tial		Final		
Analyte	True	Found	%R	True	Found	8R	Found	%R	
Aluminum	İ	I		400.0	473.80	118.4			
Antimony				120.0					
Arsenic				20.0				99.0	
Barium		1		400.0	398.90	99.7			
Beryllium				10.0	10.20	102.0	10.03	100.3	
Cadmium	İ			10.0					
Calcium				10000.0	10280.00	102.8	10200.00	102.0	
Chromium		J		20.0	25.59	128.0	22.24	111.2	
Cobalt				100.0	98.65	98.6			
Copper		1		50.0	50.95	101.9	49.92	99.8	
Iron				200.0	294.40	147.2	268.30	134.2	
Lead				6.0	6.45	107.5	6.35	105.8	
Magnesium				10000.0	9944.00	99.4	9851.00	98.5	
Manganese				30.0	29.81	99.4	29.29	97.6	
Mercury	0.2	0.20	100.0						
Nickel	İ			80.0	83.02	103.8	85.52	106.9	
Potassium				10000.0	11570.00	115.7	11350.00	113.5	
Selenium				10.0	10.05	100.5	9.37	93.7	
Silver				20.0	21.92	109.6	21.31	106.6	
Sodium				10000.0	9592.00	95.9	·		
Thallium				20.0	23.41	117.0	23.17	115.8	
Vanadium				100.0	100.30	100.3	97.90	97.9	
Zinc	i i			40.0	40.84	102.1	40.73	101.8	

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTO	М	Contract: <u>2304</u>	.6			-
Lab Code:	STLVT C	ase No.: 23046	SAS No.:		SDG No.:	GCV001	
AA CRDI. SH	andard Source	. Inorganic Ver	ntures				

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

					ndard for ICP Final				
Analyte	True	Found	%R	Initial True Found %					
Lead				6.0	4.64	77.3	4.06	67.7	
Mercury	0.2	0.16	80.0						

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTON	Contract: 230)46	
Lab Code:	STLVT Case	No.: 23046 SAS No.:	SDG No.:	GCV001
AA CRDL St	andard Source:	Inorganic Ventures		
ICP CRDL S	tandard Source:	Inorganic Ventures		

Concentration Units: ug/L

				С	RDL Standard f	or ICP	
				Initia	al	Final	
Analyte	True	Found	%R	True	Found %R	Found	%R
Lead		<u> </u>		6.0	6.23 103.8	4.79	79.8
Mercury	0.2	0.17	85.0				

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL	BURLINGTON	Contract: 23046
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AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

					CRDL Stand	dard :		
;				Init			Fina	_
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum				400.0	510.40	127.6		
Antimony		·		120.0	120.60	100.5		
Arsenic				20.0	20.87	104.4		102.6
Barium				400.0	397.70	99.4		
Beryllium				10.0	10.23	102.3		102.8
Cadmium				10.0				104.2
Calcium				10000.0	10560.00	105.6		
Chromium				20.0	21.52	107.6		113.4
Cobalt	İ			100.0	97.89	97.9		98.7
Copper				50.0	51.86	103.7		103.7
Iron				200.0	285.30	142.6		
Lead				6.0		99.8		112.8
Magnesium				10000.0	10310.00	103.1	10420.00	104.2
Manganese				30.0	30.60	102.0	30.96	103.2
Mercury	0.2	0.21	105.0					
Nickel				80.0				104.1
Potassium				10000.0	11030.00	110.3	11230.00	112.3
Selenium				10.0	11.70	117.0		
Silver				20.0	20.25	101.2	20.45	102.2
Sodium				10000.0	10160.00	101.6	10090.00	
Thallium		j		20.0	23.50	117.5		
Vanadium				100.0	99.96	100.0		
Zinc				40.0	42.10	105.2	42.47	106.2

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BUR	RLINGTON		Contract: 2	3046				
Lab Code:	STLVT	Case	No.: 23046	SAS No.:		_ SDG :	No.:	GCV001	
AA CRDL S	tandard :	Source:	Inorganic Ve	ntures					
ICP CRDL S	Standard	Source:	Inorganic Ve	ntures					
			Co	ncentration	Units: ug/L				
						CRDL Stand	dard	for ICP	
					Init	ial		Final	.
Ana	lyte	True	Found	%R	True	Found	%R	Found	%R

110.0

Control Limits: no limits have been established by EPA at this time

0.22

0.2

Mercury

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL BURLING	GTON	Contract: 23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCV001
			Tananania	Monturos		

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: <u>Inorganic Ventures</u>

Concentration Units: ug/L

				· CRDL Standard for ICP					
				Init	ial	Fina	al		
Analyte	True	Found	%R	True	Found 9	R Found	%R		
Mercury	0.2	0.17	85.0						

3 **BLANKS**

Contract: 23046 Lab Name: STL BURLINGTON

Preparation Blank Matrix (soil/water): SOLID

Analyte	Initial Calib. Blank (ug/L)	С	1	C	ontinuing Ca Blank (ug			С	Preparation Blank	С	м
Aluminum	23.6	U	23.6	υl	23.6		-27.3	В	-2.952	В	P
Antimony	4.7	U	4.7		4.7	ט	4.7	U	0.470	U	P
Arsenic	4.8	U	4.8		4.8	ט	4.8	U	0.480	U	P
Barium	5.9	U	5.9		5.9	Ū	5.9	U	0.590	U	P
Beryllium	0.2	U	0.2		0.2	ט	0.2	Ū	0.035	В	P
Cadmium	0.6	U	0.6		0.6	U	0.6	Ū	0.060	U	P
Calcium	182.1	Ū	182.1	ַ ט	182.1	U	182.1	Ū	18.210	U	P
Chromium	-5.7	В	-6.8	В	-7.2	В	-6.6	В	-0.520	В	P
Cobalt	2.0	U	2.0	י די	2.0	ט	2.0	Ū	0.200	U	P
Copper	2.4	U	2.4	ַ	2.4	ַ	2.4	Ū	0.240	U	P
Iron	33.3	U	33.3	י די	33.3	U	33.3	U	3.413	В	P
Lead	1.3	U	1.3	ַ ט	1.3	U	1.3	Ū	0.257	В	P
Magnesium	178.3	U	178.3	ַ	178.3	U	178.3	U	17.830	U	P
Manganese	-1.7	В	-1.8	В	-1.9	В	-1.7	В	-0.168	В	P
Mercury	0.1	Ū	0.1	ט	0.1	U			0.017	U	CV
Nickel	-6.9	В	-7.4	В	-7.9	В	-7.2	В	-1.036	В	P
Potassium	393.0	U	393.0	ַ	393.0	Ŭ	393.0	U	39.300	U	P
Selenium	3.4	U	3.4	ַ	3.4	Ū	3.4	U	0.340	U	P
Silver	2.2	U	2.2	ַ	2.2	U	2.2	U	0.220	U	P
Sodium	472.7	υ	472.7	ַ	472.7	U	541.8	В	124.300	В	P
Thallium	5.7	ט	5.7	Ū	5.7	Ū	5.7	Ū	0.570	Ū	P
Vanadium	2.0	Ū	2.0	U	2.0	U	2.0	U	0.200	U	P
Zinc	1.0	U	1.0	บ	1.0	Ŭ	1.0	บ	0.100	Ū	P
Cyanide	10.0	U	10.0	ט	10.0	Ū			0.467	Ū	AS

3 **BLANKS**

_____ Contract: 23046__ Lab Name: STL BURLINGTON

Preparation Blank Matrix (soil/water): SOLID

Analyte	Initial Calib. Blank (ug/L)	С	1	Co C	ntinuing Ca Blank (ug			С	Preparation Blank	С	м
Aluminum			23.6	υl	-28.5	В			-4.752	В	P
Antimony			4.7	<u>ט</u>	4.7	U			0.470	Ū	P
Arsenic		1	4.8	<u>י</u>	4.8	ט			0.480	Ū	P
Barium			5.9		5.9	יט			0.590	U	P
Beryllium	ĺ	1 1	0.2		0.2	В			0.025	В	P
Cadmium			0.6		0.6	ט			0.060	U	P
Calcium	İ		182.1		182.1	U			18.210	U	P
Chromium		1		В	-6.5	В			-0.400	В	P
Cobalt .			2.0	U	2.0	U			0.200	ŭ	P
Copper			2.4	ט	2.4	U			0.240	U	P
Iron			33.3	וט	33.3	ט	- 1117		3.330	U	P
Lead	i		2.6	В	1.3	U			0.150	U	P
Magnesium			178.3	<u>ט</u>	178.3	ט			17.830	บ	P
Manganese			-1.8		-1.7	В			-0.145	В	P
Nickel				В	-8.7	В			-0.681	В	P
Potassium	İ		393.0	υl	393.0	ט			39.300	U	P
Selenium			3.4	<u>י</u>	3.4	ַט			0.340	บ	P
Silver			2.2	υl	2.2	U			0.220	U	P
Sodium	İ		472.7	_	472.7	U			129.500	В	P
Thallium				ਹ	5.7	ט			0.570	Ū	P
Vanadium	i i			וט	2.0	ט			0.200	U	P
Zinc	<u> </u>			<u>י</u>	1.0	U			0.100	U	P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCV001

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank			Con	tinuing Blank		ation		Preparation Blank		
Analyte	(ug/L)	c	1	С	2	С	3	С		С	M
Cyanide	10.	υO	10.	0 0	10.	ַט וס	10.	ס ט	0.495	U	AS

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			Con	tinuing Blank		ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Lead	1.	3 U	-2.	0 B	1.	3 U	-1.9	В		P
Mercury	0.	1 U	0.	1 0	0.	1 U				CV

3

BLANKS

Lab Name: <u>S</u>	TL BURLING	'ON	Con	tract: <u>2304</u>	6		
Lab Code:	STLVT	Case No.: 230	46 SAS No.	. •	SDG No.:	GCV001	
-		rix (soil/wate centration Unit	e): <u>WATER</u> es (ug/L or mg/k	g): <u>UG/L</u>			
	Init	ial	Continuing	Calibration	n	-	

	Initial Calib. Blank			Con	tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	. 1	С	2	С	3	С	С	М
Lead			-1	9 B	-1	6 B				P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

:	Initial Calib. Blank				inuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	C	2	С	3	С	С	М
Cyanide	10.	ט ט	10.	0 0	10.	ןט וס	10.	0 ប	0.500 U	AS

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCV001

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank				tinuing Blank	Calibra (ug/L)	ation		Preparation Blank		
Analyte	(ug/L)	С	1.	С	2	С	3	С	Brank	С	М
Lead	1.	5 U	1.	5 U	1.	.5 ט	1.	5 บ			P
Mercury	0.	1 U	0.	1 U	0	1 ט	0.	1 U	0.017	U	CV

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

	Initial Calib. Blank				cinui: Blan	_		ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	. 2		С	3	С	С	М
Mercury			0.	1 U		l				0.017 U	CV

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank				tinuing Blank		ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	C	3	C	С	М
Cyanide	10.	0 0	10.	0 0	10	ַט ס.			0.463 U	AS

3

BLANKS

Contract: 23046 Lab Name: STL BURLINGTON

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Сс	ntinuing Ca Blank (ug				Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3.	c		С	М
Aluminum	23.6	U	23.6	ן ט	23.6	ַט	37.3	В			P
Antimony	4.7	ט	4.7	ט	4.7	ַ	4.7	บ			P
Arsenic	4.8	U	4.8	וט	4.8	U	4.8	บ			P
Barium	5.9	U	5.9	ַ	5.9	ט	5.9	U			P
Beryllium	0.2	ט	0.2	ַ ט	0.2	U	0.2	U			P
Cadmium	0.6	U	0.6	U	0.6	ט	0.6	U			P
Calcium	182.1	U	182.1	ע	182.1	U	182.1	U			P
Chromium	1.4	Ū	1.4	ַט	1.4	U	1.4	ט			P
Cobalt	2.0	บ	2.0	ן ט	2.0	U	2.0	U			P
Copper	2.4	U	2.4	U	2.4	U	2.4	U			P
Iron	33.3	U	33.3	U	33.3	U	33.3	U			P
Lead	1.5	В	1.3	U	1.3	U	1.3	U			P
Magnesium	178.3	U	178.3	U	178.3		178.3	ט			P
Manganese	0.7	U	0.7	-	0.7	U	0.7	ט			P
Mercury	0.1	U	0.1	U	0.1	U	-0.1	B			CV
Nickel	2.1	U	2.1	U	2.1	U	2.1	U			P
Potassium	393.0	U	393.0	U	393.0	U	393.0	U			P
Selenium	3.4	U	3.4	U	3.4	U	3.4	U			P
Silver	2.2	U	2.2	U	2.2	U		U			P
Sodium	472.7	U	472.7	[ט	472.7	ט	472.7	Ū			P
Thallium	5.7	U	5.7	ַ	5.7	U	5.7	U			P
Vanadium	2.0	U	2.0	ַ	2.0	U		ַ			P
Zinc	1.0	U	1.0	ט	1.0	U	1.0	U	1		P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCV001

Preparation Blank Matrix (soil/water): SOIL

	Initial Calib. Blank				tinuing Blank		ation		Preparation	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Cyanide	10.	ט ט	10.	0 0	10.	0 0	10.	0 0	0.495 U	AS

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

	Initial Calib. Blank			Con	tinuing Blank	Calibra (ug/L)	ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Mercury	0.	. 1 U	0.	. 1 U	0.	. 1 U	0.	1 ប	0.017 U	CV
Cyanide			10	. o U		TI I				AS

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

	Initial Calib. Blank		Continuing Calibration Blank (ug/L)					Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С	С	M
Mercury	0.	. 1 U	0.	1 0	0	.1 U	0.	1 บ	0.017 U	CV

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

_	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Mercury			0.	1 B						CV

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCV001</u>

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

	Tru	е	Init	ial Found		Fi	nal Found					
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB %R		Sol.A	Sol.AB					
Aluminum	500000	482740	486000	486900.0	100.9	477500		99.5				
Antimony	0	596	-2	639.4	107.3	1	633.7	106.3				
Arsenic	0	102	10	108.1	106.0	5	109.2	107.1				
Barium	0	503	2	509.7	101.3	2	505.3	100.5				
Beryllium	0	482	0	490.2	101.7	0	489.3	101.5				
Cadmium	0	938	3	955.9	101.9	3	953.6	101.7				
Calcium	500000	477840	486400	489800.0	102.5	482900	485800.0	101.7				
Chromium	0	483	-3	486.9	100.8	-3	482.2	99.8				
Cobalt	0	457	-1	469.4	102.7	-1	465.2	101.8				
Copper	0	526	3	525.9	100.0	3	523.0	99.4				
Iron	200000	191980	198200	197400.0	102.8	196100	195500.0	101.8				
Lead	0	49	-4	40.4	82.4	-6	40.4	82.4				
Magnesium	500000	521880	528200	532300.0	102.0	522600	528000.0	101.2				
Manganese	0	474	0	482.0	101.7	0	478.0	100.8				
Nickel	0	952	-6	979.9	102.9	-6	971.8	102.1				
Potassium	o	0	191	173.1		278	241.1					
Selenium	0	47	5	56.4	120.0	7	53.9	114.7				
Silver	0	213	1	214.6	100.8	1	213.6	100.3				
Sodium	0	0	110	-24.5		7	-32.8					
Thallium	0	89	-4	85.9	96.5	-5	91.8	<u> </u>				
Vanadium	0	478	1	476.0	99.6	1	472.3	98.8				
Zinc	0	998	5	1017.0	101.9	6	1013.0	101.5				

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

ICP ID Number: TJA ICAP 4

Concentration Units: ug/L

True Initial Found Final Found

	True		Initia	l Found	Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Lead	0	49	-5	41.8	85.3	-3	40.6	82.9

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

Concentration Units: ug/L

	True		Initial	Found	Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB %R	Sol.A	Sol.AB	%R	
Lead	0	44	2	47.1 107.0	2	46.5	105.7	

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

	, 		·						
	Tr	ie	Init	ial Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.Al	B %R	Sol.A	Sol.AB	%R	
Aluminum	500000	482740	507400	502200.0	104.0	508100	503700.0	104.3	
Antimony	0	596	-5	613.0	102.9	0	610.9	102.5	
Arsenic	0	102	8	107.1	105.0	6	106.1	104.0	
Barium	0	503	2	498.3	99.1	2	499.2	99.2	
Beryllium	0	482	0	486.2	100.9	0	487.2	101.1	
Cadmium	0	938	0	936.2	99.8	0	936.4	99.8	
Calcium	500000	477840	498400	498800.0	104.4	504600	501600.0	105.0	
Chromium	0	483	4	477.1	98.8	4	477.9	98.9	
Cobalt	0	457	-1	454.5	99.5	-1	454.0	99.3	
Copper	0	526	4	511.7	97.3	4	513.1	97.5	
Iron	200000	191980	201700	199100.0	103.7	203000	199300.0	103.8	
Lead	0	49	-2	44.8	91.4	0	44.2	90.2	
Magnesium	500000	521880	540400	541400.0	103.7	545300	542800.0	104.0	
Manganese	0	474	1	471.9	99.6	1	471.1	99.4	
Nickel	0	952	0	938.8	98.6	1	940.5	98.8	
Potassium	0	0	-82	-76.1		-20	-19.3		
Selenium	0	47	0	41.8	88.9	-1	46.5	98.9	
Silver	0	213	0	213.8	100.4	0	213.8	100.4	
Sodium	0	0	87	-50.0		-79	-133.8		
Thallium	0	89	-8	86.2	96.9	-5	92.2	103.6	
Vanadium	0	478	2	469.2	98.2	2	469.3	98.2	
Zinc	0	998	3	1013.0	101.5	3	1016.0	101.8	

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): SOLID

Level (low/med): LOW

% Solids for Sample: 35.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

	Control	Spiked Sample		Sample		Spike			
Analyte	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	%R	Ω	М
Aluminum	75 - 125	750.8095		213.0187	l	476.10	113.0		₽
Antimony	75 - 125	121.8102		1.0395	ט	119.02	102.3		P
Arsenic	75 - 125	8.5103		1.0617	U	9.52	89.4		P
Barium	75 - 125	977.9091		505.1757	l	476.10	99.3		P
Beryllium	75 - 125	11.9287		0.0539	В	11.90	99.8		P
Cadmium	75 - 125	11.9144		0.1327	U	11.90	100.1	<u> </u>	P
Chromium	75 - 125	47.6100		0.3097	[ប	47.61	100.0		₽
Cobalt	75 - 125	116.5492		0.4424	U	119.02	97.9		P
Copper	75 - 125	66.8444		4.8018	В	59.51	104.3		P
Iron	75 - 125	502.0473		246.8371		238.05	107.2		P
Lead	75 - 125	4.9990		0.3837	В	4.76	97.0	L.,_	P
Manganese	75 - 125	449.4382		324.4714		119.02	105.0		P
Mercury	75 - 125	0.4392		0.0446	U	0.45	97.6		CV
Nickel	75 - 125	114.6686		0.4645	U	119.02	96.3		₽
Selenium	75 - 125	3.1423		0.9491	В	2.38	92.2		P
Silver	75 - 125	11.7620		0.4866	U	11.90	98.8		P
Thallium	75 - 125	10.3599		1.2607	U	11.90	87.1		P
Vanadium	75 - 125	119.6201		0.5992	В	119.02	100.0		P
Zinc	75 - 125	137.1882		13.4345		119.02	104.0		P
Cyanide	75 - 125	6.6028		1.4045	ט	13.91	47.5	N	AS

Comments:	

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Lab Name: _	STL BURLING	STON	Contra	ct: <u>23046</u>		
Lab Code:	STLVT	Case No.: 23046	SAS		SDG No.	GCV001
Matrix (soi	1/water):	SOLID		Level (low/m	med): <u>LOV</u>	T

Concentration Units: ug/L

	Control			Sample		Spike		Control Spiked Sample Sample Spike									
Analyte	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	%R	Ω	М								
Aluminum		3114.00		963.10		2000.0	107.5		P								
Antimony		537.20		4.70	ט	500.0	107.4		P								
Arsenic		35.79		4.80	ם	40.0	89.5		₽								
Barium		4297.00		2284.00		2000.0	100.6		P								
Beryllium		52.18		0.24	В	50.0	103.9		P								
Cadmium		52.43		0.60	บ	50.0	104.9		P								
Chromium		209.80		1.40	U	200.0	104.9		P								
Cobalt		513.30		2.00	υ	500.0	102.7		P								
Copper		294.90		21.71	В	250.0	109.3		P								
Iron		2133.00		1116.00		1000.0	101.7		P								
Lead		24.12		1.74	В	20.0	111.9		P								
Manganese		1983.00		1467.00		500.0	103.2		P								
Nickel		506.30		2.10	υ	500.0	101.3		P								
Selenium		11.53		4.29	В	10.0	72.4		P								
Silver		52.72		2.20	υ	50.0	105.4		P								
Thallium		41.72		5.70	U	50.0	83.4		P								
Vanadium		525.80		2.71	В	500.0	104.6		P								
Zinc		583.80		60.74		500.0	104.6		P								
Cyanide		20.14		10.00	U	20.0	100.7		AS								

Comments: _	

DUPLICATES

SAMPLE NO.

GF	RANBGP	LT36D	

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Matrix (soil/water): SOLID Level (low/med): LOW

% Solids for Duplicate: 36.3

MG/KG Concentration Units (ug/L or mg/kg dry weight): Control Analyte RPD M Sample (S) С Duplicate (D) Limit 211.6685 P 0.6 44.2 213.0187 Aluminum P 1.1683 U 1.0395 U Antimony P 1.1932 U 1.0617 U Arsenic P 512.5784 1.5 505.1757 Barium P 0.0539 0.1035B 63.0 В Beryllium Р 200.0 0.1768 B 0.1327 Cadmium P 17763.7500 2.5 17329.4707 Calcium Ρ 0.3097 0.3480 U Chromium U P 0.4972 U 0.4424 U Cobalt P 4.4720 B 7.1 4.8018 Copper P 3.8 246.8371 256.2892 Iron P 1.9 0.3910B 0.3837 Lead P 4567.3721 4618.6738 1.1 1105.9 Magnesium P 329.1240 1.4 324.4714 Manganese CV 200.0 0.0571 B 0.0446 U Mercury ₽ 0.5220 U Nickel 0.4645 U ₽ 16227.9902 16545.6895 1.9 Potassium P 1.1062 B 15.3 0.9491 Selenium P 0.5469 U 0.4866 U Silver Ρ 300.0398 B 5.3 284.6590 Sodium P 1.2607 U 1.4169 U Thallium P 0.7087B 16.7 0.5992 Vanadium P 0.5 13.5055 13.4345 Zinc 4.4 AS 1.2213 U 1.4045 U Cyanide

LABORATORY CONTROL SAMPLE

T _ L	CMT	DUDT INCHON	Contract:	23046	
Lab Na	ame: STL	BURLINGTON	Contract:	23040	

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	s (ug/L)			Solid	(mg/kg)		
Analyte	True	Found	%R	True	Found C	Limi	ts	₹R
Aluminum			Î	200.0	187.7	160.0	240.0	93.8
Antimony				50.0	49.6	40.0	60.0	99.2
Arsenic				24.0	22.5	19.2	28.8	93.8
Barium				200.0	190.0	160.0	240.0	95.0
Beryllium				5.0	4.9	4.0	6.0	98.0
Cadmium				25.0	24.1	20.0	30.0	96.4
Calcium				2000.0	1932.0	1600.0	2400.0	96.6
Chromium				20.0	19.2	16.0	24.0	96.0
Cobalt				50.0	47.6	40.0	60.0	95.2
Copper				25.0	25.0	20.0	30.0	100.0
Iron			1	100.0	95.5	80.0	120.0	95.5
Lead				22.0	21.2	17.6	26.4	96.4
Magnesium				2000.0	1872.0	1600.0	2400.0	93.
Manganese				50.0	48.4	40.0	60.0	96.8
Mercury				0.1	0.1	0.1	0.1	100.0
Nickel				50.0	47.1	40.0	60.0	94.2
Potassium				2000.0	1895.0	1600.0	2400.0	94.8
Selenium				21.0	18.8	16.8	25.2	89.
Silver				25.0	24.0	20.0	30.0	96.0
Sodium				2000.0	1925.0	1600.0	2400.0	96.2
Thallium				25.0	23.2	20.0	30.0	92.
Vanadium				50.0	48.5	40.0	60.0	97.
Zinc				50.0	48.5	40.0	60.0	97.
Cyanide				9.6	8.5	7.4	11.8	88.

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL	BURLINGTON	Contract:	23046
		<u> </u>			

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	(ug/L)			Solid	(mg/kg)	•	
Analyte	True	Found	%R	True	Found C	Limi	ts	%R
Aluminum				200.0	203.6	160.0	240.0	101.8
Antimony				50.0	52.5	40.0	60.0	105.0
Arsenic				24.0	23.6	19.2	28.8	98.3
Barium				200.0	202.7	160.0	240.0	101.4
Beryllium				5.0	5.2	4.0	6.0	104.0
Cadmium				25.0	25.7	20.0	30.0	102.8
Calcium				2000.0	2052.0	1600.0	2400.0	102.6
Chromium				20.0	20.5	16.0	24.0	102.5
Cobalt				50.0	50.7	40.0	60.0	101.4
Copper				25.0	27.0	20.0	30.0	108.0
Iron				100.0	100.2	80.0	120.0	100.2
Lead				22.0	22.6	17.6	26.4	102.7
Magnesium				2000.0	1994.0	1600.0	2400.0	99.7
Manganese				50.0	51.6	40.0	60.0	103.2
Nickel				50.0	50.4	40.0	60.0	100.8
Potassium				2000.0	1978.0	1600.0	2400.0	98.9
Selenium				21.0	19.8	16.8	25.2	94.3
Silver			Ì	25.0	25.5	20.0	30.0	102.0
Sodium				2000.0	2046.0	1600.0	2400.0	102.3
Thallium				25.0	24.4	20.0	30.0	97.6
Vanadium			ĺ	50.0	51.9	40.0	60.0	103.8
Zinc			İ	50.0	51.7	40.0	60.0	103.4

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGT	ON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCV001

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	(ug/L)		Solid (mg/kg)					
Analyte	True	Found	%R	True	Found C	Limits	1	₽R	
Cyanide				9.6	8.6	7.4	11.8	89.6	

LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	ON		Contract:	23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCV001	

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	(ug/L)			Solid (mg	g/kg)	
Analyte	True	Found	%R	True	Found C	Limits	%R
Mercury				0.1	0.1	0.1	0.1 100.0
Cyanide	l i			9.6	8.9	7.4	11.8 92.7

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTON	Contract:	23046

Solid LCS Source: IV, ENVEXP, LOT0899

Aqueous (ug/L) Solid (mg/kg)							
Analyte	True	Found	%R	True	Found C	Limits	%R
Mercury				0.1	0.1	0.1	0.1 100.0

LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	ON		Contract:	23046	
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCV001

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	Solid (mg/kg)					
Analyte	True	Found	%R	True	Found C	Limits	%R
Cyanide				6.0	6.1	5.4	6.6 101.7

7 **LABORATORY CONTROL SAMPLE**

Lab	Name:	STL BURLINGTO	NC		Contract:	23046		—
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCV001	

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	(ug/L)		Solid (mg/kg)						
Analyte	True	Found	%R	True	Found C	Limits	%R			
Mercury				0.1	0.1	0.1	0.1 100.			
Cyanide				6.0	5.9	5.4	6.6 98.			

7 LABORATORY CONTROL SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Solid LCS Source: IV, ENVEXP, LOT0899

	Aqueous	(ug/L)	T	Solid (mg/kg)					
Analyte	True	Found	%R	True	Found C	Limits	%R		
Mercury				0.1	0.1	0.1	0.1 100.0		

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL	BURLINGTON	Contract:	23046
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Solid LCS Source: IV, ENVEXP, LOT0899

							•	
:	Aqueous	(ug/L)			Solid	(mg/kg)		
Analyte	True	Found	₹R	True	Found C	Limit	ts	%R
Aluminum	1			200.0	196.7	160.0	240.0	98.4
Antimony				50.0	51.7	40.0	60.0	103.4
Arsenic				24.0	23.4	19.2	28.8	97.5
Barium				200.0	198.6	160.0	240.0	99.3
Beryllium				5.0	5.1	4.0	6.0	102.0
Cadmium				25.0	25.2	20.0	30.0	100.8
Calcium				2000.0	2008.0	1600.0	2400.0	100.4
Chromium				20.0	20.1	16.0	24.0	100.5
Cobalt			l	50.0	49.7	40.0	60.0	99.4
Copper			1	25.0	26.4	20.0	30.0	105.6
Iron				100.0	96.9	80.0	120.0	96.9
Lead			1	22.0	22.2	17.6	26.4	100.9
Magnesium				2000.0	1950.0	1600.0	2400.0	97.5
Manganese				50.0	50.6	40.0	60.0	101.2
Nickel				50.0	49.2	40.0	60.0	98.4
Potassium			}	2000.0	1944.0	1600.0	2400.0	97.2
Selenium				21.0	19.5	16.8	25.2	92.9
Silver				25.0	25.1	20.0	30.0	100.4
Sodium				2000.0	2000.0	1600.0	2400.0	100.0
Thallium				25.0	24.3	20.0	30.0	97.2
Vanadium				50.0	50.8	40.0	60.0	101.6
Zinc				50.0	50.3	40.0	60.0	100.6
Cyanide				9.6	8.7	7.4	11.8	90.6

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCV001
Solid LCS	Source: IV, ENVEXP, LOT0899		
Aqueous LC	S \$ource:		

Aqueous (ug/L)				Solid (mg/kg)					
Analyte	True	Found	%R	True	Found C	Limits	%R		
Cyanide				6.0	5,9	5.4	6.6 98.3		

9 ICP SERIAL DILUTIONS

	NO

GRANBGPLT36L

Lab	b Name: STL BURLINGTON		Contract: 23046				
Lab	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCV001		

Matrix (soil/water): SOLID

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample ··· Result (I)	С	Serial Dilution Result (S)	С	% Differ- ence	Q	м
Aluminum	963.10		1362.00		41.4		P
Antimony	4.70	ט	23.50	U			P
Arsenic	4.80	ן ט	24.00	U	·		P
Barium	2284.00		2291.00		0.3		P
Beryllium	0.24	В	1.00		100.0		P
Cadmium	0.60	ט	3.00	U		l	P
Calcium	78350.00		82480.00		5.3		P
Chromium	1.40	U	7.00	Ū			P
Cobalt	2.00	U	10.00	U		<u> </u>	P
Copper	21.71	В	14.03	В	35.4		P
Iron	1116.00		1304.00		16.8	<u> </u>	P
Lead	1.74	В	6.50	ט	100.0		P
Magnesium	20650.00		21850.00	В	5.8		P
Manganese	1467.00		1490.00	1 1	1.6	<u> </u>	P
Nickel	2.10	ט	10.50	U			P
Potassium	73370.00		90980.00		24.0	E	ŀΡ
Selenium	4.29	В	17.00	ט	100.0		P
Silver	2.20	U	11.00	!1			P
Sodium	1287.00	В	2363.50	ַ ט	100.0		P
Thallium	5.70	U	54.43	<u> </u>	100.0		P
Vanadium	2.71	В	10.00	ַ ע	100.0		P
Zinc	60.74	Ī	72.79	В	19.8	E	P

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON			Contract: 23046					
Lab Code: STLVT	Case No.: 23	046	SAS No.:		_ SDC	3 No.	: GCV001	
ICP ID Number: _			Date:	07/01/03	·			
Flame AA ID Numb	er: <u>Lachat Cyani</u>	de						
Furnace AA ID Nu	mber:							
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м		
	Cyanide			10	10.0	AS		
								•
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:								
Comments:								

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	ON		Contract	E: <u>23046</u>			
Lab Code: STLVT C	ase No.: 230	046	SAS No.:		_ SDG	No.	: GCV001
ICP ID Number:			Date:	07/01/03	<u></u>		
Flame AA ID Number: <u>Le</u>	eman Hydra	AA					
Furnace AA ID Number: _							
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М	
	Mercury	253.70		0.2	0.10	CV	

Comments:

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046					
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCV001					
ICP ID Number: TJA ICAP 4	Date: 07/01/03					
Flame AA ID Number:						
Furnace AA ID Number:						

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М
Aluminum	308.215		200	23.6	₽
Antimony	206.838		60	4.7	₽
Arsenic .	189.042		10	4.8	P
Barium	493.409		200	5.9	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.6	P
Calcium	317.933		5000	182.1	P
Chromium	267.716		10	1.4	P
Cobalt	228.616		50	2.0	P
Copper	324.754		25	2.4	P
Iron	271.441		100	33.3	P
Lead	220.353		3	1.3	P
Magnesium	279.078		5000	178.3	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.1	P
Potassium	766.491		5000	393.0	P
Selenium	196.026		5	3.4	P
Silver	328.068		10	2.2	P
Sodium	330.232		5000	472.7	P
Thallium	190.864		10	5.7	P
Vanadium	292.402		50	2.0	P
Zinc	213.856		20	1.0	P

Comments:	•					
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10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046				
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCV001				
ICP ID Number: TJA ICAP 6	Date: 07/01/03				
Flame AA ID Number:					
Furnace AA ID Number:					

Analyte Wave- length (nm)		Back- ground	CRDL (ug/L)	IDL (ug/L)	'À
Lead	220.353		3	1.5	₽

Comments:

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046
nan	Name.	51D BOIDINGTON	001101111	

	Wave- length	I	nterelement	Correction I	Factors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Ва
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0008950	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000330	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0006300	0.000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	-0.0000220	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Thallium	190.86	0.0000200	0.000000	-0.0000900	0.0000000	0.000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Vanadium	292.40	0.0000000	0.000000	0.0000490	0.0000000	0.000000
Zinc	213.86	0.0000250	0.0000000	0.0000630	0.0000000	0.000000

Comments:			
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON Contract: 23046

·	Y					
:	Wave- length	1	Interelement	Correction 1	Factors for:	:
Analyte	(nm)	Со	Cr	Cu	Mn	Мо
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0001150	0.0000000	0.0000000	0.0000000	0.0001350
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.1059800	0.0000000	0.0000000	0.0000000	0.0036200
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0004300	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	-0.0007920
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	-0.0160000
Zinc	213.86	0.0000000	0.000000	0.0003300	0.0000000	0.0000000

Comments:	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BU	RLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

	Wave- Interelement Correction Factors for:					
	length	_	Interelement	Correction	actors for:	
Analyte	(nm)	Ni	Sb	Sn	V	Zn
Aluminum	308.22	0.0000000	0.0000000	0.1440400	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0006280	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	-0.000192	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0237000	0.000000
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.000000
Silicon	288.16	0.0000000	0.0000000	-0.1212200	0.0000000	0.000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.1177000
Thallium	190.86	0.0000000	0.000000	0.0000000	0.0025400	0.000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Zinc	213.86	0.0052400	0.000000	0.0000000	0.0000000	0.000000

Comments:		
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: <u>STL</u>	Name: STL BURLINGTON		Contract: 23046		
Lab Code: STL	/T Case	No.: 23046	SAS No.:	SDG No.: GCV001	

	Wave-	<u> </u>					
	length	Interelement Correction Factors for:					
Analyte	(nm)	Al	Ca	Fe	Mg	Ag	
Aluminum	308.215	0.0000000	0.0000000	-0.0002180	0.0000000	0.000000	
Antimony	206.838	0.0000080	0.000000	0.0000000	0.0000000	0.000000	
Arsenic	189.042	0.0000170	0.000000	-0.0000590	0.0000000	0.000000	
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Beryllium	313.042	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Boron	249.678	0.0000000	0.000000	-0.0000740	0.0000000	0.000000	
Cadmium	226.502	0.0000010	0.0000000	0.0000590	0.0000000	0.0000000	
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Chromium	267.716	0.0000100	0.000000	-0.0000200	0.0000060	0.000000	
Cobalt	228.616	0.0000000	0.000000	-0.0000400	0.0000000	0.000000	
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.000000	
Iron	271.441	0.0001740	0.0000000	0.0000000	-0.001587	0.000000	
Lead	220.353	-0.0000300	0.000000	0.0000550	-0.000006	0.000000	
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000200	0.0000000	
Molybdenum	202.030	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Nickel	231.604	0.0000000	0.000000	-0.0000520	0.0000000	0.000000	
Phosphorus	178.287	0.0000070	0.000000	0.0000000	0.0000000	0.000000	
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Selenium	196.026	0.0000000	0.000000	-0.0007500	0.0000000	0.000000	
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Strontium	421.552	0.0000000	0.0000240	0.0000000	0.0000000	0.000000	
Thallium	190.864	0.0000080	0.000000	-0.0001100	0.0000000	0.000000	
Tin	189.989	0.0000090	0.000000	-0.0000750	0.0000000	0.000000	
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000140	0.000000	
Vanadium	292.402	0.0000000	0.000000	0.0000030	0.0000040	0.000000	
Zinc	206.200	0.0000300	0.0000000	-0.0000600	0.0000000	0.000000	

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046	

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

	Wave- length	I	nterelement	Correction	Factors for:	
Analyte	(nm)	As	В	Be	Cd	Со
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.000000	0.0000000	0.0000000	-0.0082960
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	-0.0001900
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	0.0000000	0.0000000	0.0002350
Tin	189.989	0.0000000	0.000000	-0.0004370	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Zinc	206.200	0.0000000	0.000000	0.000000	0.0000000	0.0000000

Comments:		 	 	 	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046
		2.2		

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

	Wave-	_		G	Fratana 6	
	length	l I	nterelement	Correction :	ractors for:	
Analyte	(nm)	Cr	Cu	Mn	Na	Ni
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0078510	0.000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	-0.0002840	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001750
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0008900	0.000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.000000	0.0000000	0.0000000	0.0000800
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	-0.0007400	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.232	0.0000000	0.000000	0.000000	0.0000000	0.000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Thallium	190.864	0.0000000	0.000000	-0.0004500	0.0000000	0.000000
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Vanadium	292.402	0.0000000	0.0000000	0.000000	0.0000000	0.000000
Zinc	206.200	0.0044570	0.000000	0.0000000	0.0000000	0.000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL	BURLINGTON	Contract:	23046

	Wave-	1	nterelement	Correction	Factors for:	
Analyte	length					_
indry co	(nm)	Pb	Sb	Se	Si	Tl
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Thallium	190.864	-0.0003500	0.000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.000000	0.000000	0.0000000	0.0000000
Zinc	206.200	0.0003900	0.0000000	0.000000	0.0000000	0.0000000

Comments:		
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: STL BURLINGTON	Contract: 23046		
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCV001		
ICP ID Number: TJA ICAP 6	Date: 10/01/02		

Analyte Aluminum	length (nm) 308.215	V	Interelement Zn	COLLECTION	I accord I OI	• •
Aluminum	308.215		7 n			
			211			
Antimone		0.0173200	0.0000000			
Ancimony	206.838	-0.0012700	0.000000			
Arsenic	189.042	-0.0002800	0.0000000			
Barium	493.409	0.000000	0.0000000		<u> </u>	
Beryllium .	313.042	0.0004800	0.0000000			
Boron	249.678	0.000000	0.0000000			
Cadmium	226.502	0.0000000	0.0000000			
Calcium	317.933	0.0000000	0.0000000			
Chromium	267.716	-0.0003600	0.0000000		<u> </u>	
Cobalt	228.616	0.0000000	0.000000			
Copper	324.754	0.0000000	0.0000000		<u> </u>	
Iron	271.441	0.0081200	0.0000000			
Lead	220.353	-0.0000850	0.000000			
Magnesium	279.079	0.000000	0.0000000			
Manganese	257.610	0.000000	0.0000000			
Molybdenum	202.030	0.0000000	0.0000000		l	
Nickel	231.604	0.0000000	0.0000000			
Phosphorus	178.287	0.0000000	0.0164830			<u> </u>
Potassium	766.491	0.0000000	0.0000000			<u> </u>
Selenium	196.026	0.0000000	0.0000000			
Silver	328.068	-0.0003350	0.000000			<u> </u>
Sodium	330.232	-0.1479730	0.6581000			
Strontium	421.552	0.0000000	0.0000000			
Thallium	190.864	0.0014900	0.0000000			1
Tin	189.989	0.0000000	0.000000			
Titanium	334.941	0.000000	0.000000			
Vanadium	292.402	0.000000	0.000000			
Zinc	206.200	-0.0004730	0.0000000			

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Comments:	1	
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12 ICP LINEAR RANGES (QUARTERLY)

Lab Name: STL	BURLINGTON	Contract: 23046	

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	10000.0	P
Iron	10.00	1000000.0	P
Lead	10.00	10000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	10000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	5000.0	P

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

Lab Name: STL BURLING	NO	Con	tract: <u>23046</u>		
Lab Code: <u>STLVT</u>	_ Case No.: 2	3046 SAS	No.:	SDG No.:	CV001
ICP ID Number: <u>TJA IC</u>	AP 6	Da	te: <u>07/01/03</u>		
	Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М	
	Lead	1 10.00	1 50000 0	lp i	

Comments:

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
ICV	07/21/03	50.0	50.0
LCSDS0721A	07/21/03	1.04	50.0
LCSS0721A	07/21/03	1.06	50.0
MONU-WP-PLT-14	07/21/03	1.05	50.0
MONU-WP-PLT-15	07/21/03	1.10	50.0
PBS0721A	07/21/03	1.07	50.0

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PREPARATION LOG

Lab	Name:	STL BURLINGTON		Contract: 23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCV001

EPA Sample No.	Preparation Date	Initial Weight (g)	Volume (mL)
CENT-WP-PLT-31	07/22/03	0.96	50.0
ICV	07/22/03	50.0	50.0
LCSS0722A	07/22/03	1.06	50.0
PBS0722A	07/22/03	1.01	50.0
TILL-WP-PLT-27	07/22/03	1.23	50.0

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PREPARATION LOG

Lab	Name: STL BURLINGTON		Contract: 23046				
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCV001

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)
CAPMWPPLT20	07/27/03	0.98	50.0
GRANBGPLT34	07/27/03	1.10	50.0
GRANBGPLT35	07/27/03	1.05	50.0
GRANBGPLT36	07/27/03	1.00	50.0
GRANBGPLT36D	07/27/03	1.15	50.0
GRANEGPLT36S	07/27/03	1.01	50.0
ICV	07/27/03	. 50.0	50.0
LCSS0727A	07/27/03	1.02	50.0
PBS0727A	07/27/03	1.00	50.0
SHERWPPLT23	07/27/03	1.04	50.0
SHERWPPLT23(100)	07/27/03	0.99	50.0

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)
AJAXPDPLT06	07/29/03	1.01	50.0
AJAXWPPLT08	07/29/03	1.09	50.0
ICV	07/29/03	50.0	50.0
LCSS0729C	07/29/03	1.00	50.0
LUCABGPLT19	07/29/03	1.00	50.0
MAGNPDPLT11	07/29/03	1.02	50.0
MAGNWPPLT14	07/29/03	1.02	50.0
MAGNWPPLT17	07/29/03	1.05	50.0
PBS0729C	07/29/03	1.08	50.0

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PREPARATION LOG

Lab	Name:	STL BURLINGTO	ON	Contract:	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCV001

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)	
BLUEWPPLT20	08/01/03	1.02	50.0	
BLUEWPPLT24	08/01/03	1.00	50.0	
EBLK2	08/01/03	1.02	50.0	
ICV	08/01/03	50.0	50.0	
LCS0801B	08/01/03	1.00	50.0	
LCSD0801B	08/01/03	1.00	50.0	
PBS0801B	08/01/03	1.01	50.0	

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PREPARATION LOG

Lab	Name:	STL BURLINGT	ON	Contract:	23046
T.ah	Code.	STINT	Case No. : 23046	SAS No .	SDG No · GCV001

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)	
EBLK1	07/21/03	0.60	100.0	
LCSS0721G	07/21/03	1.00	100.0	
MONU-WP-PLT-14	07/21/03	0.61	100.0	
MONU-WP-PLT-15	07/21/03	0.62	100.0	
PBS0721G	07/21/03	0.60	100.0	

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PREPARATION LOG

Lab	Name:	me: STL BURLINGTON		Contract: 23046			
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCV001

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)	
CAPMWPPLT20	07/31/03	0.60	100.0	
GRANBGPLT34	07/31/03	0.68	100.0	
GRANBGPLT35	07/31/03	0.65	100.0	
GRANBGPLT36	07/31/03	0.63	100.0	
GRANBGPLT36D	07/31/03	0.63	100.0	
GRANBGPLT36S	07/31/03	0.63	100.0	
LCSS0731A	07/31/03	1.00	100.0	
PBS0731A	07/31/03	0.60	100.0	
SHERWPPLT23	07/31/03	0.64	100.0	
SHERWPPLT23(100)	07/31/03	0.68	100.0	

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PREPARATION LOG

Lab	Lab Name: STL BURLINGTON		Contract: 23046				
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCV001

EPA Sample No.	Preparation Date	Initial Weight (a)	Volume (mL)	
CENT-WP-PLT-31	07/31/03	0.63	100.0	
LCSS0731B	07/31/03	1.00	100.0	
PBS0731B	07/31/03	0.60	100.0	
TILL-WP-PLT-27	07/31/03	0.67	100.0	

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PREPARATION LOG

Lab	Name:	STL BURLINGTO	ONN	Contract: 2	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.: _	SI	DG No.:	GCV001

EPA Preparation Sample No. Date		Initial Volume mL	Volume (mL)	
AJAXPDPLT06	08/08/03	0.61	100.0	
AJAXWPPLT08	08/08/03	0.61	100.0	
LCSS0808B	08/08/03	1.00	100.0	
LUCABGPLT19	08/08/03	0.60	100.0	
MAGNPDPLT11	08/08/03	0.69	100.0	
MAGNWPPLT14	08/08/03	0.61	100.0	
MAGNWPPLT17	08/08/03	0.62	100.0	
PBS0808B	08/08/03	0.60	100.0	

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PREPARATION LOG

Lab	Name:	STL BURLINGTO	NC	Contract:	23046	····	
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCV001

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)	
BLUEWPPLT20	08/13/03	0.65	100.0	
BLUEWPPLT24	08/13/03	0.60	100.0	
EBLK2	08/13/03	0.61	100.0	
LCSS0813B	08/13/03	1.00	100.0	
PBS0813B	08/13/03	0.60	100.0	

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCV001</u>

Method: P

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)	
BLUEWPPLT20	08/07/03	1.20	100.0	
BLUEWPPLT24	08/07/03	1.09	100:0	
CAPMWPPLT20	08/07/03	1.23	100.0	
CENT-WP-PLT-31	08/07/03	1.06	100.0	
EBLK1	08/07/03	1.00	100.0	
EBLK2	08/07/03	1.00	100.0	
GRANBGPLT34	08/07/03	1.21	100.0	
GRANBGPLT35	08/07/03	1.27	100.0	
GRANBGPLT36	08/07/03	1.27	100.0	
GRANBGPLT36D	08/07/03	1.13	100.0	
GRANBGPLT36S	08/07/03	1.18	100.0	
LCSS0807J	08/07/03	1.00	100.0	
MONU-WP-PLT-14	08/07/03	1.17	100.0	
MONU-WP-PLT-15	08/07/03	1.04	100.0	
PBS0807J	08/07/03	1.00	100.0	
SHERWPPLT23	08/07/03	1.22	100.0	
SHERWPPLT23(100)	08/07/03	1.19	100.0	
TILL-WP-PLT-27	08/07/03	1.39	100.0	

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PREPARATION LOG

Lab	Name:	STL BURLINGTO	NC	Contract:	23046		
Lab	Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCV001

Method: P

EPA \$ample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXPDPLT06	08/15/03	1.09	100.0
AJAXWPPLT08	08/15/03	1.01	100.0
LCSDS0815C	08/15/03	1.00	100.0
LCSS0815C	08/15/03	1.00	100.0
LUCABGPLT19	08/15/03	1.18	100.0
MAGNPDPLT11	08/15/03	1.00	100.0
MAGNWPPLT14	08/15/03	1.04	100.0
MAGNWPPLT17	08/15/03	1.04	100.0
PBS0815C	08/15/03	1.00	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 07/21/03 End Date: 07/21/03

EPA		I		Γ									P	na	lyt	te									 \neg
Sample No.	D/F	Time	% R	A L		A S		B E	C D	C A	C R			F		M	М	H G	N I		S E	A G	T L	V	 C N
so	1.00	1618																							x
S10	1.00	1619																							x
S30	1.00	1620																							x
\$50	1.00	1621																							\mathbf{x}
S100	1.00	1622																							x
S200	1.00	1623																							x
\$300	1.00	1624																							x
ICV	1.00	1626		İ																					x
ICB	1.00	1627						Ī		П															_x
LRS	1.00	1628										Ī													\mathbf{x}
LRS	1.00	1629			İ																				x
ccv	1.00	1630		Ī																					x
ССВ	1.00	1631		Г			<u> </u>																		<u>_x</u>
ZZZZZZ	1.00	1632		Π						П															
PBS0721A	1.00	1633		Ī											Î										$ \mathbf{x} $
ZZZZZZ	1.00	1634		İ			İ																		
LCSS0721A	1.00	1635																							$\overline{\mathbf{x}}$
LCSDS0721A	1.00	1636		1											П										x
ZZZZZZ	1.00	1637																							_
ZZZZZZ	1.00	1638					Ī						Ī												_
ZZZZZZ	1.00	1638					Ī																		_
MONU-WP-PLT-15	1.00	1639					Ī																		$\overline{\mathbf{x}}$
MONU-WP-PLT-14	1.00	1640					Ī													Γ					$ \mathbf{x} $
ccv	1.00	1641		Ī									Ī												x
ССВ	1.00	1642					Ī	<u> </u>			l											Π			\mathbf{x}

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 07/22/03 End Date: 07/22/03

EPA												,			ly									,		
Sample	D/F	Time	% R		S					c			С											Т	,	Z
No.				L	В	s	Α	E	D	A	R	0	U	E	В	G	N	G	I		E	G	A	니	<u> </u>	И
S0				<u> </u>	<u> </u>				L	Щ			<u>L</u>								<u> </u>			_	+	_[:
S10		1540		<u> </u>						Ш			ļ				Ш		_	L			\Box		4	1
s30	1.00	1541		<u> </u>	<u> </u>				<u> </u>					<u> </u>	Щ					<u> </u>	_			ļ	4	<u> </u> :
S50	1.00	1542			<u> </u>														L						4	1:
S100	1.00	1543															Ш			L					4	:
S200	1.00	1544		L				<u> </u>							Ш					L	L				_	:
s300	1.00	1545					<u> </u>	<u> </u>						_	Щ						<u> </u>					:
ICV	1.00	1547												<u> </u>											\perp	:
ICB	1.00	1548																		L	L					:
LRS	1.00	1549					ĺ																		\perp	:
LRS	1.00	1550																							$oldsymbol{\perp}$	
CCV	1.00	1551																								
ССВ	1.00	1552					Ī	1	Π				Ī												\Box	
ZZZZZZ	1.00	1553			İ	Π	Ì						1				Ī									
PBS0722A	1.00	1553					Ì		Π																\Box	
LCSS0722A	1.00	1554		Ì					Ī					Π											\Box	
ZZZZZZ	1.00	1555		İ						1			Ī		П				Г						\Box	Т
ZZZZZZ	1.00	1556							Ī				İ													T
ZZZZZZ	1.00	1557						,	Π	i			Π							Γ	ĺ					Т
ZZZZZZ	1.00	1558		T			İ					Γ	T				İ			Ī	Ī				丁	\top
ZZZZZZ	1.00	1559							1				Ī							Γ	İ				丁	\top
ZZZZZZ	1.00	1600		 				i	İ	Ī			i	Ī							Ī					
CENT-WP-PLT-31		1601		1			<u> </u>		ļ	İ			T	Ī							Ī					7
ccv	1.00			1				T					İ	Г						İ	Ī	Ī			T	
CCB	1.00				T							Π	İ	╽							Ì				寸	1
TILL-WP-PLT-27		1604		T	一	i		<u> </u>	1	Ì		T	1	i						Γ	T				寸	
ZZZZZZ		1605		t	t		 		十			T		l							i		Г		一	寸
ZZZZZZ	!	1606		t	t	<u> </u>	\vdash		╁	†	i	T	T	t		Г	T		T	┢	i					\top
ZZZZZZ		1607	1	T	\vdash		i	-	T	T				十	t		i		┢	Т			Г			十
ZZZZZZ		1608		\vdash	T	\vdash	-	\vdash	T	I^-	 		+	T			\vdash		Η	T		 			一	十
ZZZZZZ		1609		╁		\vdash	 	T	┢	 	<u> </u>	T		H		 	T	\vdash	I	\vdash	i				1	\top
ZZZZZZ		1610	 	t		\vdash	\vdash	T	T	\vdash	 	\vdash	<u> </u>	T		-	T	 	\vdash	T	╁╴	<u> </u>				十
ZZZZZZ		1611		+	一	t^{-}	\vdash	T	\vdash	十	<u> </u>	\vdash	\vdash	\vdash	T	┢	T	H	一	T	\vdash		一		一十	十
ZZZZZZ		1612	<u> </u>	1	╁	\vdash	十	 	\vdash	 	<u> </u>	╁	 _	十	\vdash		\vdash	<u> </u>	t^-	\vdash	\vdash	╁	\vdash		\dashv	十
ZZZZZZ		1613	 	+	t	\vdash	╁	\vdash	\vdash	-	I [╁	\vdash	\vdash			\vdash	-	\vdash		\vdash	\vdash	H		\dashv	十
CCV		1614	<u> </u>	 	╁	\vdash	 	\vdash	+	\vdash	-	\vdash	1	\vdash	-	\vdash	\vdash	\vdash	\vdash	\vdash	\vdash		\vdash	<u> </u>	\dashv	+
ССВ	1.00	· · · · · · · · · · · · · · · · · · ·	-	╫	 	 	<u> </u>	┼-	╁	╁	 	╁	十	\vdash	\vdash	┢	\vdash	╁	╁╌	╁	+-	+-	┢	-	\dashv	\dagger

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 07/27/03 End Date: 07/27/03

Start Date: <u>07/27</u>	7/03							£	na	l D	au	₹.	<u>, </u>	/ 2	17	<u> </u>			_								
EPA													7	\na	ly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	A	N	T	V	Z	C
No.				L		s		E			R	0	ַ ט	E	В	G	N	G	I		E	G	A	L		N	N
S0	1.00	1809		 			_		H			<u> </u>						Ė			İΤ				П		Х
S10		1810		<u> </u>	l		<u> </u>	一		П							Γ	Г			Π				П	П	x
s30		1811		 			<u> </u>										Γ		İ		İ						x
S50		1812		 		\vdash	 	†								Г									П		x
S100		1813		一		 							İ			Г	Γ		Г		Ī	<u> </u>				П	x
S200		1814		 			i					Г	<u> </u>	Ì					Ī		Ī					П	x
\$300 ·		1815				<u> </u>		l —				Π					Γ		İ	Г	Π						X
ICV		1816		1	İ	<u> </u>						T		Γ			Ī		Π	Г	Π				П		X
ICB	1.00	1817		Г	İ		Ì	Ì		i				İ			Γ				ĺ	Π					x
LRS	1.00	1818	! <u> </u>	T								Ì	Ì	İ			Γ		Ī		Ī						X
LRS	1.00	1819		1		Г	Ī					Ī					Γ				Π						X
ccv	1.00	1820				İ	Ī			İ		Ĺ		Î				Π									X
CCB	1.00	1821			ĺ		Ī	Ì						Γ	İ		Ī										x
PBS0727A	1.00	1822		i	<u> </u>				Г			Π	Γ					Î		Ī		Π					X
LCSS0727A	1.00	1823	<u> </u>	† <u> </u>		Ì	İ	İ				Γ	Ī	Ī	Ī		Γ			Ī							X
SHERWPPLT23	1.00	1824	<u> </u>	i			İ						Ī	Î			Π	Π	Π								\mathbf{x}
SHERWPPLT23 (100)	1.00	1825					İ	<u> </u>		Ī			Γ		Π		Γ	Ī									X
CAPMWPPLT20	1.00	1826		T		Ī	Ī	Ī				Π															x
GRANBGPLT35	1.00	1827		Ť	Î					Π																	X
GRANBGPLT34	1.00	1828		Г			Ī		Ī				Ī														X
GRANBGPLT36	1.00	1829					Ī	Ī																	L		X
GRANBGPLT36D	1.00	1830	1	Ī			Ī															_				<u> </u>	x
GRANBGPLT36S	1.00	1831		Π			Ī															<u> </u>			L	L	X
CCV	1.00	1832		T		Ī	Ī	Ī		Ī	Ī						Π								<u> </u>		X
CCB	1.00	1833		T	İ	Π	Ī	Ī		Ī															L	$oldsymbol{ol}}}}}}}}}}}}}}}}}$	X
ZZZZZZ	1.00	1834		Τ		Ī	Ī													L					$oldsymbol{ol}}}}}}}}}}}}}$	L	L
ZZZZZZ	1.00	1835		T																			L		L		
ZZZZZZ	1.00	1836	Î																						L	L	L
ZZZZZZ	1.00	1837							L				L			L							<u> </u>		<u> </u>	<u> </u>	Ļ
ZZZZZZ	1.00	1838							_									L	L				L	<u> </u>	上	L	Ļ
ZZZZZZ	1.00	1839																<u></u>	L		L		L		L	Ļ	L
ZZZZZZ	1.00	1840											L		$oldsymbol{ol}}}}}}}}}}}}}}}}}$		L	L	L	L	L	L	L	L	L	上	上
ZZZZZZ	1.00	1841														<u>L</u>		L	L	_	L	L	<u> </u>	L	上	Ļ	ot
ZZZZZZ	1.00	1842															L	Ļ		Ļ		<u> </u>	L	L	丄	Ļ	Ļ
ZZZZZZ	1.00	1843																L	L	Ļ	<u> </u>	L	L	L	上	Ļ	Ļ
ccv	1.00	1843														L	L	L	Ļ	L	L	$oldsymbol{\perp}$	L	L	$oldsymbol{\perp}$	Ļ	X
CCB	1.00	1844														L						Ļ	Ļ	L	Ļ	Ļ	X
ZZZZZZ	1.00	1845							Γ		1			1		L						L			\perp	L	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 07/27/03 End Date: 07/27/03

EPA									•		P	na	ly	te	s								
Sample No.	D/F	Time	% R	A L	A S	l	B E	 C A		С 0		F E		M G		H G	N	SE	A G	N A		Z N	_
ZZZZZZ	1.00	1846									i												
ZZZZZZ	1.00	1847																					
GRANBGPLT36A	1.00	1848																					x

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 07/29/03 End Date: 07/29/03

EPA													A	ma	.lyt	:e	S										
Sample No.	D/F	Time	% R	A	S B	A S	B A		C D	C A	C R	С 0	, ,	F E	P B			H G	N I	K	S E	A G	N A	T L	V	Z N	C N
S0	1.00	2152		T																					j		Х
S10	1.00	2153											·														X
S30	1.00	2154																			<u> </u>						x
S50	1.00	2155																									X
S100	1.00	2156		T																							X
S200	1.00	2157		Ī																							Х
s300	1.00	2157		T		Ī	Ì																				X
ICV	1.00	2159		1																							X
ICB	1.00	2200		Ī																							X
LRS	1.00	2201		Ī		1						Π															X
LRS	1.00	2202																									L _X
CCV	1.00	2203		Ī																							X
CCB	1.00	2204						Π																			<u>x</u>
PBS0729C	1.00	2205		Ī																							X
LCSS0729C	1.00	2206		Î			Ī																				X
ZZZZZZ	1.00	2207																									L
ZZZZZZ	1.00	2208		T																							L
AJAXWPPLT08	1.00	2209																									X
AJAXPDPLT06	1.00	2210		Π																							<u> </u>
MAGNWPPLT14	1.00	2211																								\Box	X
MAGNPDPLT11	1.00	2212		Τ																							X
LUCABGPLT19	1.00	2213		T																							Х
MAGNWPPLT17	1.00	2214																									Х
CCV	1.00	2215		T																							X
ССВ	1.00	2216		1	Π	Ī	Ī				Ī		Π	1	П		1				1	1					X

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 08/01/03 End Date: 08/01/03

Start Date: <u>U8/U1</u>	705								,,,,																		
EPA													7	ma	ly	te	s		•								
Sample	D/F	Time	% R	A	S	A	В	В	С	С	С	С	С	F	P	M	М	Н	N	K	s	A	N	T	V	Z	С
No.				L	В	s	A	E	D	A	R	0	U	E	В	G	И	G	I		E	G	A	L		N	N
so	1.00	1707							Г	П					i		П									П	х
S10	1.00	1708																									x
S30	1.00	1709								П																	x
S50	1.00	1710								П																П	x
S100	1.00	1711																									x
S200	1.00	·1712					Ī																				x
s300	1.00	1713					Ī																				x
ICV	1.00	1715																								П	x
ICB	1.00	1716				Ì																				П	x
LRS	1.00	1717					Ī			П				П												\Box	x
LRS	1.00	1718								П																	x
ccv	1.00	1719																			Ī					П	x
CCB	1.00	1720					Ī														l					П	x
ZZZZZZ	1.00	1721					Ī			П					İ						Ī					П	_ i
PBS0801B	1.00	1722																								П	x
LCS0801B	1.00	1723					Ī																			П	x
LCSD0801B	1.00	1724					l										П									П	x
ZZZZZZ	1.00	1724																			Ī					П	T i
ZZZZZZ	1.00	1725		<u> </u>																						П	_ i
ZZZZZZ	1.00	1726						İ																		П	T j
ZZZZZZ	1.00	1727																									_ i
ZZZZZZ	1.00	1728																									-i
ZZZZZZ	1.00	1729						Г													<u> </u>					П	-i
CCV	1.00	1730																								П	х
CCB	1.00	1731								П																П	х
ZZZZZZ	1.00	1732					Ī																			П	Γį
ZZZZZZ	1.00	1733					Ì			Ì											<u> </u>					П	<u>Г</u> і
ZZZZZZ	1.00	1734					i	İ		П																	Γį
ZZZZZZ	1.00	1735					İ	Ì		П											<u> </u>					П	-i
ZZZZZZ		1736		<u> </u>			i			П										Π						П	Γi
ZZZZZZ	1.00	1737					İ			П										Π						П	Γi
ZZZZZZ	1.00	1738								П			Ī				П				Ī					П	Γi
ZZZZZZ	1.00	1739		Г]			П											Ī					П	Γi
BLUEWPPLT20	1.00	1740		Π	İ]		İ	П			Γ						Π		Ī	Г		Π	Ī		x
BLUEWPPLT24	1.00	1741		1			 	 	İ	Ī			Ì		П				l		Ī			Π		П	х
ccv	1.00	1742		\vdash			<u> </u>	<u> </u>	Ī	П			<u> </u>	H			П		Τ	İ	İ					П	x
ССВ	1.00	1743		T	Ī		İ	Г	Γ				Ī							Ì	Ì	Г				П	х
EBLK2		1744		Τ			İ	<u> </u>	i				Ī								Ī	Г				П	x

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 08/01/03 End Date: 08/01/03

EPA											A	na	ly¹	te	s							
Sample No.	D/F	Time	% R	A L	A S	B A	B E	1 1	C A		C U	ŀ	- 1	M G		H G	N	S E	N A	T L		
ZZZZZZ	1.00	1745																				
ZZZZZZ	1.00	1746																				
ZZZZZZ	1.00	1747																				
CCV	1.00	1748																				Х
CCB	1.00	1749									П										١	X

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 08/21/03 End Date: 08/21/03

EPA		_													lyt												
Sample	D/F	Time	8 F	₽		Α		В		С	С		С		P			H						T		z	
No.				L	В	s	A	E	D	Α	R	0	ַ	E	В	G	И	G	I		E	G	A	L		И	N
S0	1.00	1510													Х										\Box		
S	1.00	1515					Π																		\perp		
S	1.00	1520			Π										Х										\perp	$oldsymbol{ol}}}}}}}}}}}}}$	
S	1.00	1524																		L	L					\Box	_
LRS	1.00	1529					Ī								x										$oldsymbol{ol}}}}}}}}}}}}}}}}}}$		
LRS	1.00	1534			Ī -										x										\sqcup	$oldsymbol{\bot}$	
LRS	1.00	1539					1								х											$oldsymbol{ol}}}}}}}}}}}}}}}}}}$	
ICV	1.00	1545													x												_
ICB	1.00	1550		T	Ī	Π	Ī								х										\int		
ICSA	1.00	1555			T	Π	Ī	Π							x												_
ICSAB	1.00	1600			T	Ī	Ī		Γ				Ī		х										\Box		
CRI	1.00	1605			T		ĺ	Π	Ī			Γ			x												
CCV	1.00	1610			1		İ					Γ			х						Ī				\Box	\sqcap	
CCB	1.00	1616		\top	İ	İ	İ	İ				Ī	Π		х										\neg		_
ZZZZZZ	1.00	1621		1	1	T	<u> </u>	Ī	1			Γ	İ		П					Π	Ī						_
ZZZZZZ	1.00	1626				İ	Ī	Ī				Γ	<u> </u>		Ħ					Ī							_
ZZZZZZ	1.00	1631		一	 	1	İ	İ				Г	İ		П						Ī					\neg	
ZZZZZZ	1.00	1636				T	i -					Ī	Π		П											Π	
ZZZZZZ	1.00	1641		\top	†	1	i		Π	Ī		Ī	İ												\Box	\Box	
ZZZZZZ	1.00	1646		\top	 		T		一	T		Π									Ī				T		
ZZZZZZ	1.00	1651			1	T	i		Ī	Ī			İ							Î	Ī						
ZZZZZZ	1.00	1656			İ		i		T	İ		Ī	Ī	Ī				İ		Γ							
ZZZZZZ	1.00	1701			1		İ	Г	Ī				Ī		ΠÌ				Ì		Π						Γ
ZZZZZZ	1.00	1706			T	1	İ	İ	<u> </u>	İ	İ		İ	Ī	П		i			Ī	Π	П					
CCV		1711		十	1	T	i	T	İ	i	<u> </u>	T	İ		х				Π	Γ	Ī						Γ
ССВ		1716			1	1	T			İ			Ì	<u> </u>	х		İ	Γ	Γ		Γ	Ī					Γ
ZZZZZZ		1722		十	1	1	Ī		T	i		T	Ī						Ì		Γ	Ī	Ī				Γ
ZZZZZZ	1.00	1727		十	\top	T	i	T	Ì	İ			Ī	Π	П		Ì		Ī		Ì	Π					Γ
ZZZZZZ		1732		十	T	1	i	 		İ		T	İ		П		İ	Ī			Ī	Γ	Г			一	Ī
ZZZZZZ		1737		\top	 	 	†	T		i			İ	厂				<u> </u>			Ì	1	Π		ΠÌ		Γ
ZZZZZZ		1742	<u> </u>	\top	\top	 	T	T	Τ	<u> </u>			T	T	П	_	Γ		Π	T	İ	T	Π			\sqcap	Γ
ZZZZZZ		1747	<u> </u>	十	1	T		1	T			T	T		П		Π		ĺ	Ī	T	İ	Π				Γ
ZZZZZZ		1752	 	\top	+	十一	T	T		 	İ	T	1	Г			Π	Π	Ť	T	Ī	Ī	Π	i		\Box	Γ
ZZZZZZ		1757	 		\dagger	1	T	\dagger	T	\vdash	 	丅		T	\Box		ĺ		İΤ	Τ	i	Ī	Γ	i		\Box	
ZZZZZZ		1802		\top		T	T	1	T			\vdash			\sqcap	_	T	T	İΤ	T	î	Τ	Π				Γ
ZZZZZZ		1807	<u> </u>	+	\dagger	\top	十	T	1	\vdash	<u> </u>	T	\vdash	T	H	_	T	T		T	T		T	П		\sqcap	Г
ccv		1812		\dashv	+	T	<u> </u>	十	T	\vdash		T	t^-	十	x		T	T	T	T	\vdash	T	T			П	Г
ССВ		1817	 		+	+	1	\vdash	t^-	\vdash	\vdash	t	+	╁	x		t	1	╁	t^-	 	十				П	Г

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 08/21/03 End Date: 08/21/03

EPA													Į	ma	ly	te	S										
Sample No.	D/F	Time	% R	A	S B	A S	B A		C D	C A		С 0	C U			M G		H G	N	K	S E	A G	N A	T L	V	Z N	C N
ZZZZZZ	1.00	1823	-			-						İ	Г											İ	Ī		
ZZZZZZ	1.00	1828																									L
ZZZZZZ	1.00	1833																									L
ZZZZZZ	1.00	1838																									L
ZZZZZZ	1.00	1843																									L
ZZZZZZ	1.00	1848		Π				·																			
ZZZZZZ	1.00	1853																									L
ZZZZZZ	1.00	1858																					\bigsqcup				L
ZZZZZZ	1.00	1903		Ī																							L
ZZZZZZ	1.00	1908																									L
CCV	1.00	1913		Ī											Х												L
ССВ	1.00	1918													x												L
ZZZZZZ	1.00	1923		İ			İ																				L
ZZZZZZ	1.00	1929																									L
EBLK1	1.00	1934		Π			Ī								Х												L
CAPMWPPLT20	1.00	1939													x												L
GRANBGPLT34	1.00	1944		Ī											x												L
GRANBGPLT36	1.00	1949		Π											х												L
GRANBGPLT36L	5.00	1954					Π		Γ						x												L
GRANBGPLT36A	1.00	1959		Π			Ī								Х												L
GRANBGPLT36D	1.00	2004								Î.					х				<u> </u>								L
GRANBGPLT36S	1.00	2009		1						Π					x												L
ccv	1.00	2014					İ								Х												L
CCB	1.00	2019		İ	Π		Ī			Ī.,					Х												L
ZZZZZZ	1.00	2024																								L	L
ZZZZZZ	1.00	2029																								L	
ICSA	1.00	2035											L		Х											L	L
ICSAB	1.00	2040		Π	Î	П	Π								x												L
CRI	1.00	2045	Ī	Π		Ī	Ī								х												
CCV	1.00	2050		Ī						L																	L
CCB	1.00	2055		Ī	Ī	Π	Ī	T	Π	I	Π	Π	Π				1										

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 08/25/03 End Date: 08/25/03

EPA													P	<i>l</i> na	lyt	te	3										_
Sample No.	D/F	Time	% R	A		A S		B E		C A		0			P B			H G	N	K	SE		N A	T L		Z N	
S0	1.00	0700		 				_							х			T					Ì	Tİ	Ť	╗	Γ
S	1.00	0704					Ì																				ſ
S	1.00	0707												Π	х										П		Ī
S	1.00	0711		<u> </u>											П		1								\Box		I
LRS	1.00	0716				Π									х												
LRS	1.00	0720				İ							Ì		x												
LRS	1.00	0724		T								Γ		-	x						Ī			\Box			
ICV	1.00	0728		i			İ	Ì							x										\Box		
ICB	1.00	0732					<u> </u>								X										\Box		
ICSA	1.00	0737				Γ	i						Ī		x												Γ
ICSAB	1.00	0741		Τ			i						Ī		х										П		Ī
CRI	1.00	0745	-		Ī								Ī		х												Ī
ccv	1.00	0749		Τ		Ī		İ				Ì	Ī		х										\Box		Ī
ССВ	1.00	0753		T		Ī	Ī			Ī			Î		х												Ī
BLUEWPPLT20	1.00	0757		T		İ	Ī				İ		Ī	Ī	х										\Box		
PBS0815C	1.00	0801		T	<u> </u>	Ī	Ī						Ī		х												
ZZZZZZ	1.00	0806		T			1			Ī																	
ZZZZZZ	1.00	0810		İ			İ																				
ZZZZZZ	1.00	0814		1	Ī		Ī			Ī																	
ZZZZZZ	20.00	0818		Ì	İ	Π	Î		Γ		Ī																L
ZZZZZZ	100.00	0822					1			Ī																	
ZZZZZZ	20.00	0826	ĺ	Î		Ī		Π		Ī																	
ZZZZZZ	20.00	0830	ĺ	Ī	1	T	Ī	Ī		Π		Π														Ĺ	I
CCV	1.00	0834		T	Ī		Ī		Π	Π	Ī	Π	Ī		x											L	
ССВ	1.00	0838			Π	Ī	Ī	Ī	Π				Ī		x						L						
ICSA	1.00	0842		Î		Ì			Π	Ī					х												
ICSAB	1.00	0846		Ī		Ī	Ì				Π				х												ĺ
CRI	1.00	0850		Ī	Ī			Γ							х												
CCV	1.00	0855		T	T	Π	İ	Π							х												
ССВ	1.00	0859		T			Ī	Ī	Π	Ī			Ī		x					Γ	Ī	Π					

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 09/12/03 End Date: 09/12/03

EPA													A	na	ly	tes	3										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	м	н	N	K	s	Α	N	T	V	Z	С
No.				L	В	s	A		D	A	R	0	ט	E	В	G	И	G	I		E	G	A	L		N	N
SO	1.00	.0917		х	x	Х	Х	Х	Х	Х	X	х	Х	Х	Х	х	Х		Х	Х	Х	X	Х	X	x	X	
S	1.00	0922		х			٠			x				х		X				Х			X				
S	1.00	0925			х	х									Х						X			X			
S	1.00	0929					Х	х	х		X	х	х				x		Х			х			$ \mathbf{x} $	X	
LRS	1.00	0934		х	х	х	x	Х	х	Х	Х	x	х	х	х	x	х		X	X	X	х	х	X	x	X	
LRS	1.00	0939		х	х	х	х	х	х	x	х	x	x	х	Х	Х	х		X	X	X	х	х	X	x	Х	
LRS	1.00	0944		х	Х	х	x	х	х	х	х	х	х	х	х	Х	Х		Х	Х	X	х	х	X	x	x	
ICV	1.00	0949		x	х	х	х	х	Х	x	Х	х	$ \mathbf{x} $	х	Х	X	X		X	X	X	х	$ \mathbf{x} $	X	x	x	
ICB	1.00	0953		х	х	х	x	х	х	x	X	х	x	x	X	Х	Х		X	X	X	х	Х	X	x	х	
ICSA	1.00	0958		x	х	х	х	х	х	x	Х	х	х	x	х	Х	Х		X	Х	X	Х	Х	Х	x	x	
ICSAB	1.00	1003		х	Х	х	х	х	Х	x	х	х	х	х	X	Х	Х		X	Х	X	х	Х	Х	$ \mathbf{x} $	х	
CRI	1.00	1008		x	х	х	х	х	Х	x	х	x	x	х	х	X	х		X	X	X	х	Х	Х	x	x	_
CCV	1.00	1012		x	х	х	х	х	х	х	х	х	x	х	х	X	Х		Х	X	X	х	х	X	x	X	_
ССВ	1.00	1017		х	х	х	х	х	Х	x	х	х	х	х	х	Х	Х		Х	Х	Х	x	Х	Х	х	х	
PBS0807J	1.00	1022													Х							<u> </u>		L	\bigsqcup	Ш	Ĺ
GRANBGPLT36L	5.00	1027		x	х	х	х	х	х	x	x	х	x	х		x	x		Х	X	X	х	х	Х	$ \mathbf{x} $	x	L
ZZZZZZ	1.00	1031			Ì		П																				
ZZZZZZ	1.00	1036								Ī															Ш		L
ZZZZZZ	1.00	1041					Ī			Î															$oxed{oxed}$	\Box	L
MONU-WP-PLT-15	1.00	1045													Х												L
GRANBGPLT35	1.00	1050													Х						′					Ш	L
BLUEWPPLT24	1.00	1054		Π							1	Π			Х										$oxed{oxed}$	Ш	L
CENT-WP-PLT-31	1.00	1059										1_									X					\square	L
CCV	1.00	1104		X	x	x	x	x	X	x	x	x	x	х	х	X	x		Х	Х	Х	x	x	X	x	х	L
CCB	1.00	1109		x	Х	x	х	х	x	x	X	х	x	х	х	X	x		Х	X	Х	Х	Х	X	х	X	L
LUCABGPLT19	1.00	1113		Ī	ĺ					1	Π										X					Ш	L
ZZZZZZ	1.00	1118		Π	Π							Γ															L
ICSA	1.00	1123		x	х	х	Х	х	X	x	Х	х	x	х	х	х	X		х			_			x	_	
ICSAB	1.00	1127		x	Х	х	х	х	x	x	X	х	х	х	Х	x	Х		X			Х		_	_	Х	
CRI	1.00	1132		x	х	х	Х	х	x	X	X	х	х	х	Х	x	Х		х	X	X	Х	х	x	х	Х	L
CCV	1.00	1137		x	х	х	Х	Х	X	Х	X	Х	x	x	Х	Х	Х		Х	X	X	Х	X	X	x	Х	L
CCB	1.00	1142		x	Х	х	x	х	X	x	X	x	x	x	х	x	х		x	X	X	x	x	X	x	X	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 07/23/03 End Date: 07/23/03

Start Date:	07/23/03						_				 	<i></i>	J/ (_						
EPA											A	na	lyt	te	3								
Sample No.	D/F	Time	% R		S B		B E	1 1		C R	 		P B	1			N	 S E		N A	T L	Z N	С
s0	1.00	1428														Х						\Box	
S0.2	1.00	1430														х							
S0.5	1.00	1432														Х						$oldsymbol{\perp}$	
S1	1.00	1433														Х						\perp	
S 5	1.00	1435														Х							
S10	1.00	1437														X							
ICV	1.00	1439														x							
ICB	1.00	1441														Х							
CRA	1.00	1443														x							
CCV	1.00	1444														x							
CCB	1.00	1447														Х							
PBS0721G	1.00	1448														x							
LCSS0721G	1.00	1450														х							
ZZZZZZ	100.00	1452																					
ZZZZZZ	100.00	1453																					
ZZZZZZ	100.00	1455																					_
ZZZZZZ	100.00	1457							\Box			T)										\Box	_
ZZZZZZ	100.00	1459																					
ZZZZZZ	100.00	1501	-																			\prod	
ZZZZZZ	100.00	1502																					
ccv	1.00	1504														Х							
ССВ	1.00	1506		Î					П				ΠÌ			х			<u> </u>				

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 07/23/03 End Date: 07/23/03

EPA												A	na	ly	te	3										
Sample No.	D/F	Time	% R			A S		B E		C A		C D		P B			H G	N I	K			N A			Z N	
S0	1.00	1803															Х								\Box	
S0.2	1.00	1805															х					Ш				_
S0.5	1.00	1807															x								\Box	L
S1	1.00	1809															х					Ш			_	_
S5	1.00	1811															X					Ш	_		_	L
S10	1.00	1813															х					Ŀ				L
ICV	1.00	1815					l										х					igsqcup				L
ICB	1.00	1817															Х								_]	L
CRA	1.00	1819															X				L_					L
ccv	1.00	1820					1										Х		L			Ш				L
CCB	1.00	1822															X				L					L
MONU-WP-PLT-15	1.00	1824															х				乚	Ш				L
MONU-WP-PLT-14	1.00	1826															х			L		Ш				L
EBLK1	1.00	1828		Π	Ī												X			L	L	Ш		_		L
ZZZZZZ	1000.00	1829		l															<u> </u>		辶	Ш			Ш	Ļ
ZZZZZZ	1.00	1831																		L	L	Ш		ot	Ш	L
ZZZZZZ	1.00	1833																		L	L	Ш				Ļ
ZZZZZZ	1.00	1835																	L		Ļ	Ш		_	Ш	L
ZZZZZZ	1.00	1837																	L		L	Ш				L
ZZZZZZ	1.00	1838																<u> </u>	L		L	Ш				上
CCV	1.00	1840															X						Ш		Ш	L
ССВ	1.00	1842	<u> </u>		Γ		1	Π	Ī	1	1						Х									

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/04/03 End Date: 08/04/03

Start Date:	08/04/03								E	nd	Da	ate	∋:	<u>08</u>	1/0	4/0	03			_								
EPA					ľ										lna	lу	te											\neg
Sample		D/F	Time	% R	A		A	В		С	С		С	С	F	P	М	М					A		T	٧	Z	
No.					L	В	s	A	E	D	A	R	0	ا د	E	В	G	И	G	ı		F.	G	A	יו		N	N
so		1.00	1112						L.,	··									Х		<u> </u>	<u> </u>		Ш				<u> </u>
80.2		1.00	1114								Щ								Х	_	<u> </u>	Ļ	<u> </u>			Щ		_!
S0.5		1.00	1116											L					Х		_	L	L			Щ		<u>_</u>
S1		1.00	1117											<u> </u>					X	_		<u> </u>						<u>_</u> !
S5		1.00	1119											L					X	<u> </u>	_		L			Ш		<u>_</u>
S10		1.00	1121																X	<u> </u>			<u> </u>	Ш				
ICA		1.00	1123						L										X			L.						<u>_</u>
ICB		1.00	1125													<u> </u>			X			L						_
CRA		1.00	1126												L				X									╚
ccv		1.00	1128																X				L					
CCB		1.00	1130																X									L.
PBS0731A		1.00	1133																Х									L!
LCSS0731A		1.00	1134																Х									\bigsqcup
ZZZZZZ		1.00	1136		Ì																	Ī						
ZZZZZZ		1.00	1138																									
ZZZZZZ		1.00	1140					Ì						Ī			Π						Π					
ZZZZZZ		1.00	1142		Г																							
ZZZZZZ		1.00	1144		Ī			İ							Ī						Γ							
SHERWPPLT23		1.00	1146		Ī		Ī	Ī						Ī	Π				Х		Π							
SHERWPPLT23	(100)	1.00	1148		Ī		Ī						Γ		Ì	Π	Ī		Х		Ī	Γ						
CCV		1.00	1150		İ		ĺ	ĺ						Ī		Π			х				Π					
ССВ		1.00	1152				İ		Π		Ī	Ī	Ī						х		Π	Π	Π					\Box
CAPMWPPLT20		1.00	1153				Ì	<u> </u>			Ì	Ī		Ī	П	Π			х			1						Π
GRANBGPLT35		1.00	1155		İ	ĺ	i	T						Ì					Х	Γ	Ī	Ī	Ī	Ī	Ī			Γ
GRANBGPLT34			1157				1	i					Γ	Ī	İ				х			Ī	ĺ	Γ		Π		
GRANBGPLT36		1.00	1159		┪	<u> </u>	I	i				<u> </u>	T	Ī			Γ		х	Ī		Ī	1	Ī		Π		
GRANBGPLT36	5		1201					Ī	T	Г	i		Ĺ				Π		Х		Г	Ī	Π					
GRANBGPLT36	5		1203		İ	İ		i	T	Γ	Ī		İ	Ī	Ì		Ī		Х		Ī	Ì	Π	Ī	Ī			
ZZZZZZ		1.00	1205		1			İ	Ī	Ī	i	l		Ī	İ			Ī				Ī					Π	Γ
ZZZZZZ		1.00	1207		i	<u> </u>	1	İ				i	Г	Ī	П		Π	Ī		İ	Γ	İ		Ī	Π	Ì	Π	Γ
ZZZZZZ			1208		T	T	T		T		T	Ì	T	Ī		Π					T	T	Γ	ĺ	Ī	Ī		Γ
ccv			1210		1	i	 	İ	T	İΤ	İ		T	İ	T		Π		х		İ	T	İ		Ì	Π		Γ
ССВ			1212		T			Ħ	\vdash	T	Ī			T	T	İ		Γ	х		T	T	Γ	Γ	Ī	T	Γ	Π
ZZZZZZ			1214	<u> </u>	┪	T	1		T	T	1		T	T	丅	T	T	i	Ī	T	T	T		T	Ī		Γ	Γ
ZZZZZZ			1216			T	1	T		T			T	1	T		Τ	T	T	Γ	T	T	Π	T	Ī		Π	П
ZZZZZZ			1218	<u> </u>	T	 	T	\vdash		T	Π		T		t	T	T	T	Π		T	T	T	T	İ	T	İ	T
ZZZZZZ		1.00		<u> </u>	\vdash	T	t^-	\vdash	\vdash	\vdash	T	一	T	i	T	忊	T	T	T	T	T	T	T	Π		T	Τ	厂
ZZZZZZ		1.00		 	\vdash	\vdash	\vdash	\vdash		\vdash	1		t	 	T	t^{-}	T	T	Τ	T	T	T	T	T	†	T	T	一
ZZZZZZ		1.00	1222	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u>L</u>	<u> </u>		<u> </u>	<u> </u>		<u> </u>	1				<u> </u>	<u>L</u> .	<u></u>	<u> </u>		<u></u>		Щ

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/04/03 End Date: 08/04/03

EPA													A	na	ly	te	s								
Sample No.	D/F	Time	% R	A L	S B	A S	B A	1	C D	C A		1 1	C U	ı		M G	M N	H G	N	S E	A G	N A	 	Z N	
ZZZZZZ	1.00	1224											\cdot												L
PBS0731B	1.00	1226																X							L
LCSS0731B	1.00	1228																X			L.			Ĺ.	Ļ
ZZZZZZ	1.00	1230									L											Ш		L	Ļ
CCV	1.00	1232																х				Ш		<u>_</u>	Ļ
ССВ	1.00	1234						Ī										х			ŀ				L

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/04/03 End Date: 08/04/03

Start Date:	08/04/03																										
EPA			1										Z	۱na	ly	te	s										
Sample	D/F	Time	% R	A	s	A	В	В	С	С			С				М		N	K				T	V		
No.				L	В	S	A	E	D	A	R	0	บ	E	В	G	И	G	I		E	G	A	L		N	N
S0	1.0	0 1417														·		Х	_								L
S0.2	1.0	0 1419																Х									<u>L</u>
S0.5	1.0	0 1422											<u> </u>					Х	_					·		L	<u>L</u>
S1	1.0	0 1423							L_									Х									L
S5	1.0	0 1426																Х									Ļ
S10	1.0	0 1428				Π												X								L	L
ICV	1.0	0 1430							l									X				<u> </u>				_	L
ICB	1.0	0 1432				Π												X				<u> </u>				$oldsymbol{ol{ol{ol}}}}}}}}}}}}}}}$	L
CRA	1.0	0 1434			•													X				L			L	L	上
CCV	1.0	0 1435			1													X							L	L	L
ССВ	1.0	0 1437		Ī			Ī											X							Ĺ	乚	L
ZZZZZZ	100.0	0 1439																								L	L
ZZZZZZ	100.0	0 1441		Ī	Ī		Ī		Ī												L					L	L
ZZZZZZ	100.0	0 1442						Π																		L	L
ZZZZZZ	100.0	0 1444									l										L				L	L_	L
ZZZZZZ	100.0	0 1446																			L						L
ZZZZZZ	100.0	0 1448						Π			l								<u> </u>		<u> </u>					L	
ZZZZZZ	100.0	0 1450		Ī				Π	Π																L	$oldsymbol{ol}}}}}}}}}}}}}$	L
ZZZZZZ	1.0	0 1451								Ī				Π											L.	$oxed{oxed}$	上
ZZZZZZ	100.0	0 1453																		L						L	Ļ
CCV	1.0	0 1455			1		Ī											Х						<u> </u>		L	L
CCB	1.0	0 1457		I														X			L		L			L	<u> </u>
ZZZZZZ	100.0	0 1459		Π				Π											<u> </u>	L	<u></u>					上	L
CENT-WP-PLT-	31 1.0	00 1500						 										x								$oldsymbol{ol}}}}}}}}}}}}}}$	<u> </u>
TILL-WP-PLT-	27 1.0	00 1502																Х						L	L	L	Ļ
ZZZZZZ	1.0	00 1504		Ī								\prod														L	上
ccv	1.0	00 1506											Ī					X								L	L
CCB	1.0	0 1508		Ī			Ī		Π	Π	Γ	Π		I^{-}				Х									

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/14/03 End Date: 08/14/03

EPA				Γ									7	\na	ly	te	s										
Sample	D/F	Time	% R	A	s	A		,	С	С	С		С	F	P	М	М	Н		K		A			V	Z	
No.				L	В	s	A	E	D	A	R	0	U	E	В	G	N	G	I		E	G	A	L		N	N
S0	1.00	1016																Х		·	<u>. </u>					Ш	
S0.2	1.00	1018												<u> </u>				Х								\bigsqcup	L
S0.5	1.00	1019																Х									
S1	1.00	1021															Ш	X									L
S5	1.00	1023																X									
S10	1.00	1025																Х									
ICV	1.00	1027																X									
ICB	1.00	1029																X									
CRA	1.00	1031			Ì		İ						-					Х									
CCV	1.00	1033					Ī			Ì			Ì					Х									Γ
ССВ	1.00	1035					ĺ											Х			Π						Γ
PBS0808B	1.00	1036					Π		Г						İ			Х									Γ
LCSS0808B	1.00	1038					Π			Ī								Х									Γ
ZZZZZZ	1.00	1040		İ			i			İ				Ī													Γ
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ZZZZZZ	1.00	1044					İ			İ				Ī													一
ZZZZZZ	1.00	1046					Ī			İ		Γ									Π					П	Γ
AJAXWPPLT08	1.00	1048		 										<u> </u>				Х			Ī						Γ
AJAXPDPLT06	1.00	1049					i	<u> </u>		İ			Ì					Х						i			Γ
MAGNWPPLT14	1.00	1051			<u> </u>	ļ —	 	i					Ī	İ				Х									Γ
CCV	1.00	1053					i						<u> </u>	İ				Х			Ī			П		П	Г
ССВ	1.00	1055		 		i	İ							Ī				х			<u> </u>	İ					
MAGNPDPLT11	1.00	1057											<u> </u>	Ī	1			Х									Γ
LUCABGPLT19	1.00	1058						\vdash	Ī				l			<u> </u>		Х			1						Г
MAGNWPPLT17	1.00	1100	·				T					T	Τ	T				х			Ī						Г
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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/14/03 End Date: 08/14/03

Start Date:	00/14/05	<u></u>								1110										_								
EPA		1												A	ına	1y	te	s										
Sample		D/F	Time	% R	A	s	A	В	В	С	c	С	С	С	F	P	М	М	Н	N	к	s	Α	N	T	V	z	С
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S0.2		<u>-</u>	1656				<u> </u>	Ī					П						х							П	П	_
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S10			1703			<u> </u>	 											П	Х			П						Γ
ICV		1.00			 						H							П	Х							П	П	Γ
ICB	*	1.00			一			i	<u> </u>		i								Х							П	П	Γ
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ZZZZZZ		1.00	1728		1			Ì		Γ	Ì	İ			Π			П					1					
CCV		1.00	1730	1	Ī			Ī		Ī	Ī								Х									
CCB		1.00	1732	<u> </u>	İ		Ī	Ī	İ		Π	Ì	Ī						X									
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ZZZZZZ		1.00	1745			İ	T	T	Ī		Ī														L	L	$oxed{oxed}$	
ZZZZZZ		1.00	1746		T	Ī	Ī		Ī	Π	Ī		Π														$oldsymbol{f L}$	L
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CCV	:	1.00	1751		Ī	T		Ī				Π	П						Х			L				\perp	L	L
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ZZZZZZ	!	1.00	1755	1	T	Ī	Î	Ī						Ĺ			L					Ĺ				L	L	
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14

ANALYSIS RUN LOG

 Lab Name: STL BURLINGTON
 Contract: 23046

 Lab Code: STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCV001

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 08/14/03 End Date: 08/14/03

EPA												An	aly	yte	s								
Sample No.	D/F	Time	% R	A	S B	A S	B A	B E	ı	C A		C F		M G	1	H G	N I	 S E	 N A	T L		Z N	
BLUEWPPLT20	1.00	1804										Ť		İ		X							_
BLUEWPPLT24	1.00	1806														X					\sqcup		
EBLK2	1.00	1808														Х							
ZZZZZZ	1.00	1810					Ī														$oldsymbol{\perp}$		
ccv	1.00	1811														X							_
ССВ	1.00	1813											T	Τ		Х						- 1	ı

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 08/21/03 End Date: 08/21/03

Start Date: 08/21/	03							£	na	. Da	ate	∋:	<u>08</u>	/ _	1/(13			-								
EPA	T				-								A	na	ly	te	3										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	H	N	K	S	A	N	T	v	z	С
No.		ľ		L	В	s	Α	E	D	A	R	0	ט	E	в	G	N	G	I		E	G	A	L		И	И
S0	1.00	0313		х	х	х	х	х	X	x	Х	Х	х	х	х	x	х		Х	Х	Х	X	х	Х	х	x	
S	1.00	0318		х						х			- 1	х		x			•	Х			х				
S	1.00	0322			х	х				П					х						Х			х		T	- i
S	1.00	0326					х	х	Х		х	х	x				х		Х			Х			х	Х	_
LRS	1.00	0332		х	х	х	х	х	х	x		х		х	х	x	х		Х	X	Х	X	х	Х	х	х	_
LRS	1.00	0337		х	х	х	х	х	Х	х	х		х		х	x	х		х	Х	X	Х	х	Х	x	х	
LRS	1.00	0342		х	х	х	х	х	Х	x		х			х	X	х		Х	Х	х	X	х	Х	х	х	
ICV	1.00	0347		х	х	х	х	х	Х	х		х			х		х		Х	Х	Х	x	x	Х	х	х	_
ICB	1.00	0352		х	х	х	х	х	х	х	х	х	х		х	-	х		Х	х	X	х	х	х	х	х	_
ICSA	1.00	0357		х	Х	х	х	х			х	_		_	х	X	х		х	х	х	Х	х	Х	х	х	
ICSAB	1.00	0403		х	х	ـــــــا	Х	х	-	_			_	_	х		х		х				х			x	
CRI	1.00	0408		х	х	х	х	х	_			-	_		х		х		Х		_	_	х			x	_
ccv	1.00	0413		х	х	х	х	х	х	•	_	х		_	Х		х		Х	х	х	х	х	Х	х	х	_
ССВ	1.00	0418		х	х	х	х	х		х	_	х			х		х		Х			_	х		х	х	_
PBS0807J	1.00	0423		х	х	х	х	х			_	_	х			X	х		Х	Х	х	Х	х	X	х	х	_
LCSS0807J	1.00	0428		х	х		х	х	_	х		х			Х	x	х		Х			_	х	_	_	x	_
MONU-WP-PLT-15	1.00	0433		х	х	х	х	х		х		х			_	x	х		Х				х		х	х	_
MONU-WP-PLT-14	1.00	0438		х	х	х	х	х	х	х		_	_		х	x	х		х	х	х	Х	х		х	x	_ i
EBLK1	1.00	0444		х	х	х	х	х		x	_	_	х		_	x	Х		Х	х	х	x	Х	Х	х	X	_
CENT-WP-PLT+31	1.00	0449		х	х	х	х	х	<u> </u>	х		х	_	х	х	x	х		х	х		х	х	Х	х	x	_
TILL-WP-PLT-27	1.00	0454		x	х	х	х	х	_	х	х		х		х	x	х		х	х	x	х	х	x	х	х	
SHERWPPLT23	1.00	0459		х	х	х	х	х	х	х		х		х	х	x	х		х	х	x	х	х	х	х	X	
SHERWPPLT23(100)	1.00	0504		х	Х	х	x	х	х	х		x	х			x	х		х	х	x	х	х	х	х	х	
CAPMWPPLT20	1.00	0509		x	х	х	x	х	х	x	х	-	х			x	х		х	х	х	х	х	х	х	х	_
ccv	1.00	0514		х	х	х	x	х	<u></u>	х	х	-		х	х	x	х		х	х	х	х	х	х	х	х	- i
ССВ	1.00	0519		х	х	х	x	х	х	x	х				х	x	х		х	х	x	Х	х	х	х	х	_
GRANBGPLT35	1.00	0524		x	х	х	x	х		x	x	•	х		•	x	х		х	х	х	Х	x	х	х	х	
GRANBGPLT34	1.00	0529		x	x	х	x	х	x	х	х	х	х		Ì	X	х		х	х	х	х	x	Х	х	х	_
GRANBGPLT36	1.00	0534	<u> </u>	х	х	х	х	х	X	x						x	х		Х	Х	Х	Х	х	х	х	х	
GRANBGPLT36L	5.00	0540		İ			1		Γ	Î	İ			Ī							Ī						
GRANBGPLT36A	1.00	0545	İ	х	х	х	x	х	х	İ	x	x	х	х			Х		Х		x	х		X	х	Х	_
GRANBGPLT36D	1.00	0550	<u> </u>	х	х	х	x	х	x	x						x	x		x	X	x	x	x	x	х	х	_
GRANBGPLT36S	1.00	0555	<u> </u>		х				_			_	х	-	_		x		х	Π	x	х	Γ	х	х	х	
BLUEWPPLT20	1.00	0600	i	x	х	х	Х	х	x	x						x	х		Х	x	х	x	X	Х	х	Х	
BLUEWPPLT24	1.00	0605			х											x	х		х	х	X	х	х	х	х	Х	
EBLK2	1.00	0610													x	x	х		x	x	x	х	х	x	х	х	
ccv	1.00	0615	1	_	•	:	•	: -	-						х	_	_		х	Х	х	х	x	Х	х	х	
ССВ	1.00	0620	İ									4	_	_	х				х	x	X	х	x	X	х	х	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCV001

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 08/21/03 End Date: 08/21/03

tart Date: <u>08/2</u>	1/03							-		נט	ш С.																
EPA											_		P	ma	ly	te	S										
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	M	М	Н	N	K	S	A	И	T	V	Z	С
No.				L	В	S	A	E	D	A	R	0	บ	E	В	G	И	G	I		E	Ģ	A	L		N	N
PBS0815C	1.00	0625		Х	X	Х	X	Х	X	Х	Х	Х	X	X		X	Х		X	X	X		Х		х	_	
LCSS0815C	1.00	0630		x	Х	х	Х	х	Х	Х	X	х	X	x	Х	X	X		X	Х	X	х	х	x	х	X	
LCSDS0815C	1.00	0636		х	х	х	х	x	X	Х	Х	x	x	\mathbf{x}	X	X	X		X	X	X	х	х	X	x	Х	
AJAXWPPLT08	1.00	0641		х	x	х	х	х	X	x	Х	x	x	x	х	X	X		х	X	X	х	х	x	х	х	
AJAXPDPLT06	1.00	0646		х	х	х	х	х	X	x	Х	Х	х	x	Х	X	X		Х	X	X	х	x	х	x	Х	_
MAGNWPPLT14	1.00	0651		х	х	х	х	х	х	х	Х	x	х	х	Х	X	х		X	X	X	х	x	x	x	x	
MAGNPDPLT11	1.00	0656		х	х	х	х	х	x	х	Х	x	х	х	Х	X	Х		X	X	Х	х	Х	Х	х	x	
LUCABGPLT19	1.00	0701		х	х	х	х	х	Х	x	х	х	х	х	х	X	x		X	X		х	х	x	х	x	
MAGNWPPLT17	1.00	0706		х	Х	х	х	х	х	х	х	х	х	х	х	X	х		X	Х	Х	Х	Х	Х	x	X	
CCV	1.00	0711	-	х	х	х	x	x	х	x	x	х	х	х	X	X	х		X	X	Х	х	х	Х	х	Х	
ССВ	1.00	0716		х	х	x	х	х	x	x	x	х	х	х	X	X	х		Х	Х	Х	Х	X	Х	х	X	
ICSA	1.00	0721		х	х	х	х	х	Х	x	x	х	х	х	х	X	x		X	Х	Х	х	Х	X	x	х	
ICSAB	1.00	0727		х	Х	х	х	х	Х	x	х	х	х	х	Х	х	Х		Х	Х	Х	х	Х	Х	x	Х	
CRI	1.00	0732		х	х	х	х	x	х	x	_	х	_	х	Х	x	Х		X	Х	x	Х	Х	х	х	Х	
CCV	1.00	0737		х	х	x	х	x	х	x		х				X	х		X	Х	х	Х	X	x	$ \mathbf{x} $	Х	
CCB	1.00	0742		х	х	х	х	х	x	x	Х	х	х	х	х	x	х		Х	х	x	Х	x	x	$ \mathbf{x} $	X	

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCW003



September 9, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCW003

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 22, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client <u>Sample ID</u>	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/22/03	ETR No: 94950	
535396	AJAXSTPWP04	07/17/03	Water
535397	AJAXSTPWP04F	07/17/03	Water
535398	AJAXSTSFW04	07/17/03	Water
535399	AJAXSTSFW04F	07/17/03	Water
535400	AJAXPDSFW06	07/17/03	Water
535401	AJAXPDSFW06F	07/17/03	Water
535402	AJAXADSFW07	07/17/03	Water
535403	AJAXADSFW07F	07/17/03	Water
535404	AJAXSTSFW52	07/17/03	Water
535405	AJAXSTSFW52F	07/17/03	Water
535406	GRANSTSFW54	07/17/03	Water
535407	GRANSTSFW54F	07/17/03	Water
535408	GRANSTSFW53	07/17/03	Water
535409	GRANSTSFW53F	07/17/03	Water
535410	MAGNSTSFW01	07/18/03	Water
535411	MAGNSTSFW01F	07/18/03	Water
535412	MAGNSTPWP01	07/18/03	Water
535413	MAGNSTPWP01F	07/18/03	Water
535414	MAGNSTSFW02	07/18/03	Water
535415	MAGNSTSFW02F	07/18/03	Water
000-10	WINCHEST OF WORL	01110/00	v v alGi

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

Ms. Jennifer Kindred September 9, 2003 Page 2 of 2

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal.

The analysis for arsenic speciation was performed by STL's North Canton facility, as approved by EA Engineering. STL North Canton assigned "Lot" numbers as samples were received. Though laboratory numbers may differ, the client's sample identifications were maintained. The results for this delivery group including a case narrative prepared by the North Canton laboratory are attached to this report.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Sulfate by 375.4

Please note that the due to instrumentation problems, sulfate was analyzed by Method 375.4 versus 300.0 as agreed to by the client.

Solids by 160.x

The analyses of all samples in this delivery group submitted for solids determinations (total, suspended, and / or dissolved) were performed one to two days beyond the method specified holding time of seven days. Samples were received with two days remaining in hold time and the laboratory analyzed all samples as quickly as was possible.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page 001.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely.

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/jtw/jmm

0001 B LAST alpha

SEVERN TRENT LABORATORIES, INC. SEVERN TRENT

STL Burlington 208 South Park Drive, Suite 1 Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

D10+2

Water

∀ / N **∀**/N Lab/Sample ID (Lab Use Only) when received (C°): Screened For Radioactivity femp. of coolers ო Lab Use Only Due Date: Custody Seal Intact K ヤ メス K 又又 Remarks × メ X X REQUESTED ¥ ANALYSIS Time /0>0 Ŕ Q Time X X X ጿ × X Date //27/63 P/0 <u>R</u> 7 7 C 2 1 No/Type of Containers2 Date 250 ml A/G 80 3 3 \mathcal{C} Q Invoice to: Received by: (Signature Same Received by: (Signature ampler's Signature Project Name it (reat Workers head Fax: Phone: MAGN- ST-SPW- 02 AJAX - AD-5FW-07 Company: Contact: RSXX - ST - SFW - 52 MAGN-ST. PWP-01 Address: X | MAGN- ST-SFW-01 なるととしてとる X AXX- PD-SFW-06 45.03.15-12-125 55- Mys - 2- 12-20 AJAX-ST-PWP-04 8 Identifying Marks of Sample(s) -2t -63 Sellevine, MA 98005 425-451-740D 425- 451-1800 Company: EA ENSINGONNE Cen Kindved 2011 98-1801 - Xatherer Report to: × Relinduished by: (Signature) inquished by: (Signature) ೧೦೯೮ MARKSIL 11/1/2 1500 THE THE 1/1/2/1740 11/18/1830 11865155 117/00/1400 11/1/02/16t5 1/18/03/140 J Pliglogysoo gmes Time Proj. No. 73890, 13 Sampler's Name Contact:_ Phone: Matrix¹ Date Fax: Quote: Contract/

STL cannot accept verbal changes.

Please Fax written changes to

(802) 655-1248

Client's delivery of samples constitutes acceptance of Severn Trent Laboratories

terms and conditions contained in the Price Schedule.

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- Charcoal Tube SL - Sludge P/0 - Plastic or other STD m

C - Charcoal Tube

250 ml - Glass wide mouth

A/G - Amber / Or Glass 1 Liter

A - Air bag

L - Liquid

Soil

W - Water

 Wastewater 40 ml vial

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2Container ¹Matrix

STL8234-200 (12/02)

Time

Date

Received by: (Signature

Time

Date

Relinquished by: (Signature)



Geotechnical Analysis Sample Data Summary Package

EASEAT

GCWOØ3

Oxidation-Reduction Potential

By ASTM 1498

Client: EASEAT ETR(s): 94950 Client Code: EASEAT GCW003 SDG(s): **Project:** 23046 MRD Analyst(s): **Job #:** N/A 17-Aug-03 **Start Date:** Date Received: 22-Jul-03 17-Aug-03 **End Date:**

ORP Probe Calibration Check

	ORP read	ORP reading (mV)				
Calibration Solution	Pre	Post	Temp. (°C)			
100 mL pH 4 buffer + 1.0g Quinhydrone	297	295	18.5			
100 mL pH 7 buffer + 1.0g Quinhydrone	123	121	18.5			

Redox. Potential

Lab#	Sample ID	Temp. (°C)	Reading 1	Reading 2	ORP (mV)
535398	SFW04	16.0	151	153	152.0
535400	SFW06	16.0	164	165	164.5
535402	SFW07	16.0	170	169	169.5
535404	SFW52	16.0	184	184	184.0
535406	SFW54	16.0	182	180	181.0
535410	SFW01	16.0	164	164	164.0
535414	SFW02	16.0	169	166	167.5



Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

AJAXSTSFW04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535398

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Domenton	Analytical	Analytical	Unito	DE	_B ,	Como	Ougi
		Batch	+				Qual.
Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	307	
Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	224	
Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	1	5.0	260	
Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	3.1	
Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	υ
Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	137	
Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	137	
Sulfate	08/11/03	BLKSU0811A	mg/L	5	25.0	58.6	
Corrosivity by pH	07/25/03		pH Units	1	0.000	8.1	
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	Total Dissolved Solids Total Suspended Solids Volatile Suspended Solids Hydroxide Alkalinity Carbonate Alkalinity Bicarbonate Alkalinity Total Alkalinity Sulfate	Parameter Run Date Conductivity (umhos/cm) 07/25/03 Total Hardness as CaCO3 07/31/03 Total Dissolved Solids 07/26/03 Total Suspended Solids 07/25/03 Volatile Suspended Solids 07/25/03 Hydroxide Alkalinity 07/28/03 Carbonate Alkalinity 07/28/03 Bicarbonate Alkalinity 07/28/03 Total Alkalinity 07/28/03 Sulfate 08/11/03	ParameterRun DateBatchConductivity (umhos/cm)07/25/03Total Hardness as CaCO307/31/03BLKHA0731ATotal Dissolved Solids07/26/03BLKDS0726ATotal Suspended Solids07/25/03BLKSS0725AVolatile Suspended Solids07/25/03BLKAL0728AHydroxide Alkalinity07/28/03BLKAL0728ACarbonate Alkalinity07/28/03BLKAL0728ABicarbonate Alkalinity07/28/03BLKAL0728ATotal Alkalinity07/28/03BLKAL0728ASulfate08/11/03BLKSU0811A	ParameterRun DateBatchUnitsConductivity (umhos/cm)07/25/03umhos/cmTotal Hardness as CaCO307/31/03BLKHA0731Amg/LTotal Dissolved Solids07/26/03BLKDS0726Amg/LTotal Suspended Solids07/25/03BLKSS0725Amg/LVolatile Suspended Solids07/25/03BLKAL0728Amg/LHydroxide Alkalinity07/28/03BLKAL0728Amg/LCarbonate Alkalinity07/28/03BLKAL0728Amg/LBicarbonate Alkalinity07/28/03BLKAL0728Amg/LTotal Alkalinity07/28/03BLKAL0728Amg/LSulfate08/11/03BLKSU0811Amg/L	Parameter Run Date Batch Units DF Conductivity (umhos/cm) 07/25/03 umhos/cm 1 Total Hardness as CaCO3 07/31/03 BLKHA0731A mg/L 1 Total Dissolved Solids 07/26/03 BLKDS0726A mg/L 1 Total Suspended Solids 07/25/03 BLKSS0725A mg/L 1 Volatile Suspended Solids 07/25/03 mg/L 1 Hydroxide Alkalinity 07/28/03 BLKAL0728A mg/L 1 Carbonate Alkalinity 07/28/03 BLKAL0728A mg/L 1 Bicarbonate Alkalinity 07/28/03 BLKAL0728A mg/L 1 Total Alkalinity 07/28/03 BLKAL0728A mg/L 1 Sulfate 08/11/03 BLKSU0811A mg/L 5	Parameter Run Date Batch Units DF RL Conductivity (umhos/cm) 07/25/03 umhos/cm 1 0.000 Total Hardness as CaCO3 07/31/03 BLKHA0731A mg/L 1 2.0 Total Dissolved Solids 07/26/03 BLKDS0726A mg/L 1 5.0 Total Suspended Solids 07/25/03 BLKSS0725A mg/L 1 0.50 Volatile Suspended Solids 07/25/03 BLKAL0728A mg/L 1 5.0 Hydroxide Alkalinity 07/28/03 BLKAL0728A mg/L 1 1.0 Carbonate Alkalinity 07/28/03 BLKAL0728A mg/L 1 1.0 Bicarbonate Alkalinity 07/28/03 BLKAL0728A mg/L 1 1.0 Sulfate 08/11/03 BLKSU0811A mg/L 5 25.0	Parameter Run Date Batch Units DF RL Conc. Conductivity (umhos/cm) 07/25/03 umhos/cm 1 0.000 307 Total Hardness as CaCO3 07/31/03 BLKHA0731A mg/L 1 2.0 224 Total Dissolved Solids 07/26/03 BLKDS0726A mg/L 1 5.0 260 Total Suspended Solids 07/25/03 BLKSS0725A mg/L 1 0.50 3.1 Volatile Suspended Solids 07/25/03 BLKAL0728A mg/L 1 5.0 5.0 Hydroxide Alkalinity 07/28/03 BLKAL0728A mg/L 1 1.0 1.0 Carbonate Alkalinity 07/28/03 BLKAL0728A mg/L 1 1.0 137 Total Alkalinity 07/28/03 BLKAL0728A mg/L 1 1.0 137 Sulfate 08/11/03 BLKSU0811A mg/L 5 25.0 58.6

Sample Report Summary

Client Sample No.

AJAXPDSFW06

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535400

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	760	
130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	524	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	1	5.0	700	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	4.1	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	υ
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	170	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	170	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	50	250	350	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	8.1	
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Sample Report Summary

Client Sample No.

AJAXADSFW07

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535402

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	758	
130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	512	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	1	5.0	692	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	2	1.0	69.0	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	υ
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	166	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	166	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	50	250	380	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	7.9	
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Sample Report Summary

Client Sample No.

AJAXSTSFW52

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535404

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	761	
130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	524	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	1	5.0	733	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	2	0.77	36.0	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	9.7	
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	176	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	176	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	25	125	320	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	7.5	
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Sample Report Summary

Client Sample No.

GRANSTSFW54

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535406

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	112	
130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	104	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	1	5.0	116	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	5.0	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	υ
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	51.2	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	51.2	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	1	5.0	15.3	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	7.7	
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Sample Report Summary

Client Sample No.

MAGNSTSFW01

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535410

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	215	
130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	260	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	1	5.0	169	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	0.90	
160.4	Volatile Suspended Solids	07/25/03		mg/L	. 1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	υ
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	142	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	142	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	1	5.0	5.2	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	8.0	
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Sample Report Summary

Client Sample No.

MAGNSTSFW02

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535414

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	318	
130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	1	2.0	156	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	1	5.0	252	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	5.2	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	139	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	139	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	10	50.0	69.3	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	8.1	
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Method Blank Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Conc.	Ünits	Qual.	DF	RL	Analytical Run Date	Analytical Batch
BLKAL0728A	310.1	Hydroxide Alkalinity	1.0	mg/Ĺ	υ	1	1.0	07/28/03	BLKAL0728A
BLKAL0728A	310.1	Carbonate Alkalinity	1.0	mg/L	U	1	1.0	07/28/03	BLKAL0728A
BLKAL0728A	310.1	Bicarbonate Alkalinity	1.0	mg/L	U	1	1.0	07/28/03	BLKAL0728A
BLKAL0728A	310.1	Total Alkalinity	1.0	mg/L	U	1	1.0	07/28/03	BLKAL0728A
BLKDS0726A	160.1	Total Dissolved Solids	5.0	mg/L	υ	1	5.0	07/26/03	BLKDS0726A
BLKDS0726B	160.1	Total Dissolved Solids	5.0	mg/L	υ	1	5.0	07/26/03	BLKDS0726B
BLKHA0731A	130.2	Total Hardness as CaCO3	2.0	mg/L	υ	1	2.0	07/31/03	BLKHA0731A
BLKSS0725A	160.2	Total Suspended Solids	0.50	mg/L	U	1	0.50	07/25/03	BLKSS0725A
BLKSU0811A	375.4	Sulfate	5.0	mg/L	U	1	5.0	08/11/03	BLKSU0811A
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Laboratory Control Sample Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCS Conc.	True Value	% Recovery*
LCS DS0726A	160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	50.0	50.0	100.0
LCS DS0726B	160.1	Total Dissolved Solids	07/26/03	BLKDS0726B	mg/L	51.0	50.0	102.0
LCSAL0728A	310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	58.8	54.7000	107.5
LCSAL0728A	310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	58.8	54.7000	107.5
LCSAL0728A	310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	58.8	54.7000	107.5
LCSAL0728A	310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	58.8	54.7000	107.5
LCSCD0725A	120.1	Conductivity (umhos/cm)	07/25/03		umhos/c	930	977.0000	95.2
LCSHA0731A	130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	124	121.0000	102.5
LCSPH0725A	9040B	Corrosivity by pH	07/25/03		pH Units	6.0	6.0000	100.0
LCSSS0725A	160.2	Total Suspended Solids	07/25/03	BLK\$\$0725A	mg/L	502	500	100.4
LCSSU0811A	375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	9.6	10.0	96.0

^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.

Laboratory Control Sample Duplicate Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW003

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCSD Conc.	True Value	% Recovery*	RPD*
LCSDCD0725A	120.1	Conductivity (umhos/cm)	07/25/03		umhos/c	958	977.0000	98.1	3
LCSDHA0731A	130.2	Total Hardness as CaCO3	07/31/03	BLKHA0731A	mg/L	124	121.0000	102.5	0
LCSDPH0725A	9040B	Corrosivity by pH	07/25/03		pH Units	6.0	6.0000	100.2	0
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.
** Control Limit for RPD is +/- 20%, unless otherwise specified.



Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

ab Code: ST		ontract: 23046	
197 COGG: 31	LVT Case No.: 23046	SAS No.:	SDG No.: GCW003
SOW No.: IL	M04.1		
		Lab Sample ID.	
	EPA Sample No.	535402	-
	AJAXADSFW07	535402	
	AJAXADSFW07F AJAXPDSFW06	535400	
	AJAXPDSFW06F	535400	
	AJAXSTPWP04	535396	•
	AJAXSTPWP04F	535397	-
	AJAXSTSFW04	535398	
	AJAXSTSFW04F	535399	
	AJAXSTSFW52	535404	
	AJAXSTSFW52F	535405	
	GRANSTSFW54	535406	
	GRANSTSFW54F	535407	
	MAGNSTPWP01	535412	
	MAGNSTPWP01F	535413	
	MAGNSTSFW01	535410	
	MAGNSTSFW01F	535411	
	MAGNSTSFW02	535414	
	MAGNSTSFW02F	535415	
TOD in	total mark compations applied?		/ VES
	nterelement corrections applied?		Yes/No YES
Were ICP ba	ackground corrections applied?		Yes/No YES
Were ICP ba If yes		?	165/110
Were ICP ba If yes applio	ackground corrections applied? s-were raw data generated before	?	Yes/No YES
Were ICP ba If yes applio	ackground corrections applied? s-were raw data generated before	?	Yes/No YES
Were ICP ba If yes applio	ackground corrections applied? s-were raw data generated before	?	Yes/No YES
Were ICP ba	ackground corrections applied? s-were raw data generated before	?	Yes/No YES
Were ICP ba If yes applic Comments: I certify t contract, b above. Rel computer-re	ackground corrections applied? s-were raw data generated before	pliance with the terms eness, for other than t his hardcopy data packa te has been authorized	Yes/No YES Yes/No NO and conditions of the the conditions detailed age and in the by the Laboratory
Were ICP ba If yes applic omments: I certify t contract, b above. Rel computer-re	chat this data package is in composite technically and for complete eadable data submitted on diskets	pliance with the terms eness, for other than t his hardcopy data packa te has been authorized	Yes/No YES Yes/No NO and conditions of the the conditions detailed age and in the by the Laboratory

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXADSFW07	

Lab Name:	STL BURLING	TON		Contract	: ;	23046	L		
Lab Code:	STLVT	Case No.:	23046	SAS N	· . :		SDG 1	· . o	GCW003
Matrix (so	il/water):	WATER	· · · · · · · · · · · · · · · · · · ·	:	Lab	Sample ID:	53540)2	

Date Received: 7/22/2003

% Solids: 0.0

Level (low/med): LOW

GNG N-	Analyte	Concentration	С	0	м
CAS No.	Maryce	Concenciación	~	_ ~	**
7429-90-5	Aluminum	27.7	В		P
7440-36-0	Antimony	3.8	טן		P
7440-38-2	Arsenic	2.6	В		P
7440-39-3	Barium	12.1	B		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	105000	Τ		P
7440-47-3	Chromium	3.0	В		P
7440-48-4	Cobalt	1.8	שן		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	16.8	ր		P
7439-92-1	Lead	1.6	В		P
7439-95-4	Magnesium	58000			P
7439-96-5	Manganese	215			P
7439-97-6	Mercury	0.11	В		cv
7440-02-0	Nickel	9.9	В		P
7440-09-7	Potassium	3460	В		P
7782-49-2	Selenium	1.7	שן		P
7440-22-4	Silver	0.90	טן		P
7440-23-5	Sodium	5170			P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	5.7	ΙŪ		P
57-12-5	Cyanide	10.0	טן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXA	DSFW07F	•	

Lab Name:	STL BURLING	TON	Con	tract: 2	23046		
Lab Code:	STLVT	Case No.: 23	3046	SAS No.:		SDG No.:	GCW003
Matrix (so:	il/water):	WATER		Lab	Sample ID:	535403	<u></u>

Date Received: 7/22/2003

% Solids: 0.0

Level (low/med): LOW

			т	I	т –
CAS No.	Analyte	Concentration	С	Ω	M
7429-90-5	Aluminum	907	1		P
7440-36-0	Antimony	4.5	В		P
7440-38-2	Arsenic	41.9		1	P
7440-39-3	Barium	29.5	В		P
7440-41-7	Beryllium	0.20	מן	1	P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	109000	1		P
7440-47-3	Chromium	0.60	שן		P
7440-48-4	Cobalt	13.3	В		P
7440-50-8	Copper	10.3	В		P
7439-89-6	Iron	10500			P
7439-92-1	Lead	4.4			P
7439-95-4	Magnesium	59500			P
7439-96-5	Manganese	1590			P
7439-97-6	Mercury	0.48]		cv
7440-02-0	Nickel	41.6		l	P
7440-09-7	Potassium	3860	B		P
7782-49-2	Selenium	1.8	B		P
7440-22-4	Silver	0.90	שן]	P
7440-23-5	Sodium	5200			P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.2	В		P
7440-66-6	Zinc	83.0			P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: —				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJ	AXPDSI	FW06	

Lab Name:	STL BURLIN	GTON	Contract:	23046		
Lab Code:	STLVT	Case No.: 23046	SAS No.:		SDG No.:	GCW003
Matrix (so	il/water):	WATER	Lab	Sample ID:	535400	

Date Received: 7/22/2003

% Solids: 0.0

Level (low/med): LOW

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	56.5	В		P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	5.4	В		P
7440-39-3	Barium	10.9	В		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.30	שן		P
7440-70-2	Calcium	107000	Π		P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	1.8	ע		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	765			P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	58800			P
7439-96-5	Manganese	154			P
7439-97-6	Mercury	0.12	B		cv
7440-02-0	Nickel	6.9	B		P
7440-09-7	Potassium	3530	B		P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.90	ש		P
7440-23-5	Sodium	5230			P
7440-28-0	Thallium	2.8	ן ט		P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	11.9	В		P
57-12-5	Cyanide	10.0	שן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:			,	

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

_		
	AJAXPDSFW06F	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (soi	l/water): WATER	Lab Sample ID:	535401
Level (low/	med): LOW	Date Received:	7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	30.6	В		P
7440-36-0	Antimony	3.8	ן ט		P
7440-38-2	Arsenic	2.4	ט		P
7440-39-3	Barium	9.8	В		P
7440-41-7	Beryllium	0.20	ע		P
7440-43-9	Cadmium	0.30	מ		P
7440-70-2	Calcium	106000			P
7440-47-3	Chromium	0.60	ט		P
7440-48-4	Cobalt	1.8	טן		P
7440-50-8	Copper	1.4	מן		P
7439-89-6	Iron	16.8	טן		P
7439-92-1	Lead	2.3	B		P
7439-95-4	Magnesium	58400			P
7439-96-5	Manganese	95.9			P
7439-97-6	Mercury	0.12	В		CV
7440-02-0	Nickel	5.0	В	l	P
7440-09-7	Potassium	3480	B		P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.90	שן		P
7440-23-5	Sodium	5240			P
7440-28-0	Thallium	2.8	U	1	P
7440-62-2	Vanadium	2.2	U	Ī	P
7440-66-6	Zinc	5.7	טן		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: —		1.10		

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXSTPWP04

ab Name:	STL BURL	INGTON	Contra	ct: 23046				
Lab Code:	STLVT	Case No.:	23046 SAS	No.:	_	SDG No	.: GCW003	
Matrix (so	il/water)	: WATER		Lab Sample II) :	535396		
evel (low	/med):	LOW		Date Received	d:	7/22/2	003	
Solids:	0.0	_						
		Concentration	Units (ug/L or	mg/kg dry weig	ht) :	UG/L		
		CAS No.	Analyte	Concentration	С	Q	М	
		57-12-5	Cyanide	10.0	ן ט		AS	
Color Be	fore:	C1	arity Before:		Te	xture:		
Color Af	ter:	C1	arity After:		Ar	tifact	s:	
Comments	:							

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXSTPWP04F

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (soi	.l/water): WATER	Lab Sample ID:	535397
Level (low/	med): LOW	Date Received:	7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	28.0	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	11.5			P
7440-39-3	Barium	84.1	B		P
7440-41-7	Beryllium	0.20	טן	l	P
7440-43-9	Cadmium	0.60	ןט]	P
7440-70-2	Calcium	44200]	P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	טן]	P
7440-50-8	Copper	2.4	מן		P
7439-89-6	Iron	34.9	B	<u> </u>	P
7439-92-1	Lead	1.3	מן		P
7439-95-4	Magnesium	20000			P
7439-96-5	Manganese	15.2			P
7439-97-6	Mercury	0.10	טן		cv
7440-02-0	Nickel	2.1	מן		P
7440-09-7	Potassium	2480	B		P
7782-49-2	Selenium	3.4	טן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	7420			P
7440-28-0	Thallium	5.7	שן		P
7440-62-2	Vanadium	2.0	ע		P
7440-66-6	Zinc	5.0	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
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USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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AJAXSTSFW	04	

Lab	Name:	STL BURLINGTO	ИС		Contract:	23046			
Lab	Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCW003	

Matrix (soil/water): WATER Lab Sample ID: 535398

Level (low/med): LOW_____ Date Received: 7/22/2003

% Solids: 0.0

			_		
CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	48.1	В		P
7440-36-0	Antimony	4.2	B		P
7440-38-2	Arsenic	23.6			P
7440-39-3	Barium	69.8	B		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	ע		P
7440-70-2	Calcium	40600			P
7440-47-3	Chromium	0.60	ט		P
7440-48-4	Cobalt	1.8	ט		P
7440-50-8	Copper	1.4	ַ		P
7439-89-6	Iron	151			P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	12.8	В		P
7439-97-6	Mercury	0.15	В		cv
7440-02-0	Nickel	2.0	שן		P
7440-09-7	Potassium	2570	В		P
7782-49-2	Selenium	1.7	מ		P
7440-22-4	Silver	0.90	שן		P
7440-23-5	Sodium	6480			P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	5.7	שן		P
57-12-5	Cyanide	10.0	שן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAXSTSFW04F	

Lab Name:	STL BURLINGTO	N	C	ontract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCW003
Matrix (soi	il/water): WA	ATER		Lab	Sample ID:	535399	
Level (low,	/med): LOW	 		Dat	e Received:	7/22/2003	

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
					<u> </u>
7429-90-5	Aluminum	28.2	В		P
7440-36-0	Antimony	4.2	B	}	P
7440-38-2	Arsenic	22.9			P
7440-39-3	Barium	70.2	В		P
7440-41-7	Beryllium	0.20	ן ט		P
7440-43-9	Cadmium	0.30	ן ט		P
7440-70-2	Calcium	41000			P
7440-47-3	Chromium	0.60	מ		P
7440-48-4	Cobalt	1.8	u		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	90.2	B		P
7439-92-1	Lead	2.0	B		P
7439-95-4	Magnesium	18800			P
7439-96-5	Manganese	8.6	B		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	2.0	Įυ		P
7440-09-7	Potassium	2530	В		P
7782-49-2	Selenium	1.7	ט		P
7440-22-4	Silver	0.90	ען		P
7440-23-5	Sodium	6700	1		P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	5.7	טן		P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AJAX:	STSFW52	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (so	il/water): WATER	Lab Sample ID:	535404
Level (low	/med): LOW	Date Received:	7/22/2003

% Solids: 0.0

Level (low/med): LOW

		T			
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	33.8	В		P
7440-36-0	Antimony	3.8	טן		P
7440-38-2	Arsenic	47.3			P
7440-39-3	Barium	33.1	В		P
7440-41-7	Beryllium	0.20	ט		P
7440-43-9	Cadmium	0.30	מן		P
7440-70-2	Calcium	107000	1		P
7440-47-3	Chromium	0.60	ען		P
7440-48-4	Cobalt	1.8	Įυ		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	31.1	B		P
7439-92-1	Lead	1.7	В		P
7439-95-4	Magnesium	56500	T		P
7439-96-5	Manganese	362			P
7439-97-6	Mercury	0.10	שן		cv
7440-02-0	Nickel	2.0	שן		P
7440-09-7	Potassium	4520	В]	P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	0.90	ען		P
7440-23-5	Sodium	5450			P
7440-28-0	Thallium	2.8	שׁ		P
7440-62-2	Vanadium	2.2	ש		P
7440-66-6	Zinc	5.7	שן		P
57-12-5	Cyanide	10.0	שן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
			-		

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

 AJAXSTS	FW52F	

Lab Name:	STL BURLINGTO	ON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	_ SAS No.:		SDG No.:	GCW003

Matrix (soil/water): WATER Lab Sample ID: 535405

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

	T				 -1
CAS No.	Analyte	Concentration	C	Ω	М
7429-90-5	Aluminum	83.1	В		P
7440-36-0	Antimony	3.8	ש		P
7440-38-2	Arsenic	63.6			P
7440-39-3	Barium	26.7	В		P
7440-41-7	Beryllium	0.20	מ		P
7440-43-9	Cadmium	0.30	שן		P
7440-70-2	Calcium	111000			P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	1.8	ט		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	1230			P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	58800			P
7439-96-5	Manganese	136			P
7439-97-6	Mercury	0.16	B		cv
7440-02-0	Nickel	2.0	טן		P
7440-09-7	Potassium	4440	В		P
7782-49-2	Selenium	1.7	ע		P
7440-22-4	Silver	0.90	טן		P
7440-23-5	Sodium	5420			P
7440-28-0	Thallium	2.8	טן		P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	7.5	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: _				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
GRANSTSFW54

Lab Name: STL BU	RLINGTON	Contract: 23046	
Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (soil/wate	r): WATER	Lab Sample ID:	535406
Level (low/med):	LOW	Date Received:	7/22/2003
1:1			

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	54.1	В		P
7440-36-0	Antimony	3.8	ן ט		P
7440-38-2	Arsenic	12.6]	P
7440-39-3	Barium	53.3	B		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	שן		P
7440-70-2	Calcium	16200			P
7440-47-3	Chromium	0.60	טן		P
7440-48-4	Cobalt	1.8	שן		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	78.1	B		P
7439-92-1	Lead	1.5	טן		P
7439-95-4	Magnesium	4120	B		P
7439-96-5	Manganese	15.0		[P
7439-97-6	Mercury	0.14	B		cv
7440-02-0	Nickel	2.0	ĺα		P
7440-09-7	Potassium	2530	В		P
7782-49-2	Selenium	1.7	שן		P
7440-22-4	Silver	0.90	טן		P
7440-23-5	Sodium	3490	В		P
7440-28-0	Thallium	2.8	ט	l	P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	5.7	טן		P
57-12-5	Cyanide	10.0	שן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:		L. Carrier and Car		

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANSTSFW54F

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (soi	l/water): WATER	Lab Sample ID:	535407
Level (low/	med): LOW	Date Received:	7/22/2003
e Solide:	0 0		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	26.4	В		P
7440-36-0	Antimony	3.8	טן		P
7440-38-2	Arsenic	9.6	В		P
7440-39-3	Barium	51.0	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	שן		P
7440-70-2	Calcium	15900			P
7440-47-3	Chromium	0.74	В		P
7440-48-4	Cobalt	1.8	שן		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	32.3	B		P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	4040	B		P
7439-96-5	Manganese	6.7	B		P
7439-97-6	Mercury	0.10	В		cv
7440-02-0	Nickel	2.0	טן		P
7440-09-7	Potassium	2490	B	_	P
7782-49-2	Selenium	1.7	ן ט		P
7440-22-4	Silver	0.90	ן ט		P
7440-23-5	Sodium	3650	В		P
7440-28-0	Thallium	2.8	ען		P
7440-62-2	Vanadium	2.2	טן		P
7440-66-6	Zinc	5.7	טן		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: —				

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPWP01

Lab Name:	STL BURL	INGTON	Contra	act: 23046			
Lab Code:	STLVT	Case No.	: 23046 SAS	5 No.:	SD	G No.:	GCW003
Matrix (so	il/water)	: WATER		Lab Sample II): <u>53</u>	5412	
Level (low	/med):	LOW		Date Received	i: <u>7/</u>	22/2003	3
% Solids:	0.0	_					
		Concentration	Units (ug/L or	mg/kg dry weig	ht)։ <u>Մ</u>	G/L	_
		CAS No.	Analyte	Concentration		Q M	
		57-12-5	Cyanide	10.0	ן ט	AS]
Color Be	•		larity Before: larity After:			ure:	
Comments	:						
	•						

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPWP01F	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (soi	.1/water): WATER	Lab Sample ID:	535413
Level (low/	med): LOW	Date Received:	7/22/2003

% Solids: 0.0

Level (low/med): LOW

			Τ_		Τ
CAS No.	Analyte	Concentration	C	Ω	M
7429-90-5	Aluminum	60.7	В		P
7440-36-0	Antimony	3.8	ע		P
7440-38-2	Arsenic	2.4	ן ט	1	P
7440-39-3	Barium	74.4	B		P
7440-41-7	Beryllium	0.20	ע		P
7440-43-9	Cadmium	0.30	טן	j	P
7440-70-2	Calcium	29200			P
7440-47-3	Chromium	2.1	В		P
7440-48-4	Cobalt	1.8	ע		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	40.4	В		P
7439-92-1	Lead	1.5	טן	1	P
7439-95-4	Magnesium	12500			P
7439-96-5	Manganese	4.0	В		P
7439-97-6	Mercury	0.11	В		CV
7440-02-0	Nickel	2.0	שן		P
7440-09-7	Potassium	2150	B		P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	0.90	מן		P
7440-23-5	Sodium	6550			P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.2	ען		P
7440-66-6	Zinc	5.7	ען		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
<u></u>				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MA	GNSTS	FW01	

Lab Name: STL BURLINGTON	Contract:	23046	
Lab Code: STLVT Case No.: 23	046 SAS No.:	SDG	No.: GCW003
Matrix (soil/water): WATER	Lak	Sample ID: 535	410
Level (low/med): LOW	Dat	ce Received: 7/2	2/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
	_		i		
7429-90-5	Aluminum	51.8	В		P
7440-36-0	Antimony	4.4	В		P
7440-38-2	Arsenic	2.4	טן		P
7440-39-3	Barium	56.5	В		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	28400	1		P
7440-47-3	Chromium	0.60	שן		P
7440-48-4	Cobalt	1.8	שן		P
7440-50-8	Copper	1.4	טן		P
7439-89-6	Iron	57.1	В		P
7439-92-1	Lead	1.5	טן		P
7439-95-4	Magnesium	12900	1		P
7439-96-5	Manganese	4.8	В		P
7439-97-6	Mercury	0.11	В		cv
7440-02-0	Nickel	2.0	טן		P
7440-09-7	Potassium	2320	B		P
7782-49-2	Selenium	1.7	שׁ		P
7440-22-4	Silver	0.90	ט		P
7440-23-5	Sodium	6570			P
7440-28-0	Thallium	2.8	ען		P
7440-62-2	Vanadium	2.4	В		P
7440-66-6	Zinc	5.7	טן		P
57-12-5	Cyanide	10.0	ן ט		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
-				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
MAGNSTSFW01F

Lab Name: S	TL BURLINGTON	Contract: 23046	
Lab Code: S	TLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (soil	/water): WATER	Lab Sample ID:	535411
Level (low/m	ed): LOW	Date Received:	7/22/2003
% Solids: 0	. 0		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	30.2	В		P
7440-36-0	Antimony	4.1	В		P
7440-38-2	Arsenic	2.4	שן		P
7440-39-3	Barium	55.2	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	שן		P
7440-70-2	Calcium	28200			P
7440-47-3	Chromium	0.60	שן		P
7440-48-4	Cobalt	1.8	ש		P
7440-50-8	Copper	1.4	ען	1	P
7439-89-6	Iron	38.8	В		P
7439-92-1	Lead	1.5	ען	1	P
7439-95-4	Magnesium	12800		1	P
7439-96-5	Manganese	3.3	В		P
7439-97-6	Mercury	0.10	В		CV
7440-02-0	Nickel	2.0	טן		P
7440-09-7	Potassium	2420	В	[P
7782-49-2	Selenium	2.4	В		P
7440-22-4	Silver	0.90	ען		P
7440-23-5	Sodium	6480		1	P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.2	שן		P
7440-66-6	Zinc	5.7	שן	<u> </u>	P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTSFW02	
THOMBIDING	

Lab Name:	STL BURLINGTO	ON	<u>.</u>	Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.	:	SDG No.:	GCW003

Matrix (soil/water): WATER Lab Sample ID: 535414

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	60.0	В		P
7440-36-0	Antimony	4.9	В		P
7440-38-2	Arsenic	36.2			P
7440-39-3	Barium	65.1	В		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.30	טן		P
7440-70-2	Calcium	40900			P
7440-47-3	Chromium	0.60	שן		P
7440-48-4	Cobalt	1.8	ען		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	464			P
7439-92-1	Lead	1.7	B	ĺ	P
7439-95-4	Magnesium	18700			P
7439-96-5	Manganese	28.0			P
7439-97-6	Mercury	0.18	B		cv
7440-02-0	Nickel	2.0	שן		P
7440-09-7	Potassium	2790	В		P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	6300			P
7440-28-0	Thallium	2.8	ט		P
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	5.7	טן		P
57-12-5	Cyanide	10.0	טן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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_					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
MAGNSTSFW02F

Lab Name: STL BURLINGTON		Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW003
Matrix (so.	il/water): WATER	Lab Sample ID:	535415
Level (low	/med): <u>LOW</u>	Date Received:	7/22/2003
% Solids:	0.0		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	29.1	В		P
7440-36-0	Antimony	5.6	В		P
7440-38-2	Arsenic	29.7	1		P
7440-39-3	Barium	62.3	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.30	ען		P
7440-70-2	Calcium	40500			P
7440-47-3	Chromium	0.60	שן		P
7440-48-4	Cobalt	1.8	טן		P
7440-50-8	Copper	1.4	שן		P
7439-89-6	Iron	102			P
7439-92-1	Lead	1.5	ש		P
7439-95-4	Magnesium	18500			P
7439-96-5	Manganese	21.2			P
7439-97-6	Mercury	0.10	שן	1	CV
7440-02-0	Nickel	2.0	שן		P
7440-09-7	Potassium	2780	В		P
7782-49-2	Selenium	1.7	שן		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	6230	1		P
7440-28-0	Thallium	2.8	שן		P
7440-62-2	Vanadium	2.2	ע		P
7440-66-6	Zinc	5.7	Ŭ		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial Calibration		Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found 8	R(1)	м
Lead	1000.0	1070.00 107.0	400.0	390.80	97.7	433.40	108.4	Р
Mercury	3.0	3.09 103.0	5.0	4.98	99.6	4.87	97.4	CV
Cyanide	120.0	113.99 95.0	150.0	144.40	96.3	149.38	99.6	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON			Contract: 23046	
Lab Code:	STLVT Ca	ase No.: 23046	SAS No.:	SDG No.: GCW003
Initial Ca	libration Sourc	e: Inorganic Vent	tures/Fisher	
Continuing	Calibration So	ource: SPEX/Fisher	<u>.</u>	

	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М
Lead			400.0	431.50	107.9	430.70	107.7	P
Mercury			5.0	4.61	92.2	4.73	94.6	CV
Cyanide	1		150.0	153.09	102.1	151.26	100.8) AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initia	l Calibratio	n		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found 5	kR(1)	м
Aluminum	26000.0	26760.00	102.9	30200.0	29200.00	96.7	29630.00	98.1	Р
Antimony	250.0	254.70	101.9	300.0	301.50	100.5	300.10	100.0	P
Arsenic	250.0	259.60	103.8	100.0	100.90	100.9	101.60	101.6	P
Barium	500.0	505.30	101.1	200.0	192.10	96.0	194.40	·97.2	P
Beryllium	500.0	512.00	102.4	100.0	95.85	95.8	96.00	96:0	P
Cadmium	500.0	500.20	100.0	100.0	94.54	94.5	94.92	94.9	P
Calcium	25000.0	25570.00	102.3	30200.0	28950.00	95.9	29030.00	96.1	P
Chromium	500.0	507.00	101.4	200.0	190.90	95.4	192.00	96.0	P
Cobalt	500.0	501.70	100.3	200.0	193.10	96.6	195.40	97.7	P
Copper	500.0	514.70	102.9	200.0	195.80	97.9	198.30	99.2	Р
Iron	25500.0	26060.00	102.2	30200.0	28820.00	95.4	28510.00	94.4	P
Magnesium	25000.0	25270.00	101.1	30200.0	28930.00	95.8	29070.00	96.3	P
Manganese	500.0	502.70	100.5	200.0	191.20	95.6	192.20	96.1	P
Nickel	500.0	506.80	101.4	200.0	192.00	96.0	194.50	97.2	P
Potassium	25000.0	26850.00	107.4	30200.0	30710.00	101.7	31270.00	103.5	P
Selenium	250.0	251.70	100.7	100.0	99.13	99.1	99.85	99.8	P
Silver	500.0	505.00	101.0	100.0	98.79	98.8	100.00	100.0	P
Sodium	25000.0	25260.00	101.0	30200.0	28670.00	94.9	29320.00	97.1	Р
Thallium	250.0	247.60	99.0	100.0	94.81	94.8	96.47	96.5	Р
Vanadium	500.0	503.70	100.7	200.0	189.80	94.9	192.10	96.0	P
Zinc	500.0	502.70	100.5	200.0	195.60	97.8	190.10	95.0	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLINGT	ON		_Contract: <u>23046</u>		
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.:	GCW003

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

:	Initial (Calibratio	on		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	29150.00	96.5	29330.00	97.1	Р
Antimony				300.0	302.60	100.9	299.90	100.0	Р
Arsenic				100.0	100.30	100.3	99.99	100.0	
Barium				200.0	193.90	97.0	192.00	96.0	P
Beryllium				100.0	97.14	97.1	94.30	94.3	Р
Cadmium	1			100.0	96.79	96.8	94.26	94.3	P
Calcium	1			30200.0	29440.00	97.5	28750.00	95.2	P
Chromium			1	200.0	195.00	97.5	190.50	95.2	P
Cobalt				200.0	198.50	99.2	194.00	97.0	Р
Copper	1		İ	200.0	195.90	98.0	195.00	97.5	P
Iron	i			30200.0	28540.00	94.5	27610.00	91.4	P
Magnesium				30200.0	29380.00	97.3	28840.00	95.5	Р
Manganese				200.0	193.80	96.9	189.30	94.6	Р
Nickel			Ì	200.0	197.20	98.6	192.40	96.2	P
Potassium		<u></u>		30200.0	31070.00	102.9	30920.00	102.4	P
Selenium				100.0	100.20	100.2	98.45	98.4	P
Silver	I		Ì	100.0	99.90	99.9	99.13	99.1	P
Sodium			İ	30200.0	28750.00	95.2	29030.00	96.1	Р
Thallium			Ì	100.0	97.81	97.8	95.22	95.2	P
Vanadium	1		İ	200.0	192.50	96.2	189.40	94.7	P
Zinc	1		1	200.0	194.10	97.0	186.50	93.2	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

4.4	Initial	Calibratio	n	(Continuing	Calibra	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found &	R(1)	м
Aluminum	26000.0	26170.00	100.7	30200.0	30260.00	100.2	30190.00	100.0	P
Antimony	250.0	251.50	100.6	300.0	305.50	101.8	306.30		
Arsenic	250.0	245.00	98.0	100.0	100.10	100.1	100.30		
Barium	500.0	495.30	99.1	200.0	201.20	100.6	200.80		
Beryllium	500.0	501.70	100.3	100.0	99.17		100.70		
Cadmium	500.0	492.70	98.5	100.0	98.33				
Calcium	25000.0	25420.00	101.7	30200.0	30230.00		30630.00		
Chromium	500.0	501.60	100.3	200.0	198.20	99.1	200.00		-
Cobalt	500.0	491.80	98.4	200.0	198.90	99.4	201.10		-
Copper	500.0	502.30	100.5	200.0	203.00	101.5	203.20		-
Iron	25500.0	26220.00	102.8	30200.0	30220.00	100.1	30550.00		
Lead	1000.0	984.80	98.5	400.0	392.20	98.0	397.90	99.5	•
Magnesium	25000.0	25360.00	101.4	30200.0	30000.00	99.3	30470.00		
Manganese	500.0	494.80	99.0	200.0	199.00	99.5	201.00		
Nickel	500.0	497.10	99.4	200.0	195.60	97.8	197.40	98.7	
Potassium	25000.0	26390.00	105.6	30200.0	31300.00	103.6	31120.00		•
Selenium	250.0	241.30	96.5	100.0	99.90	99.9	102.30		-
Silver	500.0	499.90	100.0	100.0	101.10	101.1	100.70		
Sodium	25000.0	24940.00	99.8	30200.0	29690.00	98.3	29470.00	97.6	-
Thallium	250.0	233.70	93.5	100.0	98.20		100.70		
Vanadium	500.0	495.40	99.1	200.0	199.30	99.6	201.30		
Zinc	500.0	498.40	99.7	200.0	200.30	100.2	201.80	100.9	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial C	alibratio	on	(Continuing	Calibra	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	М
Aluminum				30200.0	30870.00	102.2	30230.00	100.1	Р
Antimony				300.0	310.20	103.4	302.90	101.0	P
Arsenic				100.0	102.90	102.9	99.10	99.1	P
Barium	T I			200.0	205.30	102.6	200.40	100.2	P
Beryllium				100.0	101.70	101.7	99.53	99.5	Р
Cadmium			İ	100.0	101.00	101.0	98.60	98.6	P
Calcium				30200.0	30800.00	102.0	30180.00	99.9	₽
Chromium				200.0	201.90	101.0	197.60	98.8	P
Cobalt				200.0	202.40	101.2	197.90	99.0	P
Copper	1			200.0	207.40	103.7	202.70	101.4	P
Iron	1			30200.0	30870.00	102.2	30200.00	100.0	Р
Lead				400.0	395.00	98.8	389.80	97.4	P
Magnesium	l l			30200.0	30630.00	101.4	29960.00	99.2	P
Manganese				200.0	203.40	101.7	199.00	99.5	P
Nickel	Ti Ti			200.0	198.70	99.4	194.80	97.4	P
Potassium				30200.0	31710.00	105.0	31040.00	102.8	P
Selenium				100.0	99.83	99.8	100.50	100.5	Р
Silver				100.0	102.70	102.7	101.30	101.3	₽
Sodium	1			30200.0	29870.00	98.9	29570.00	97.9	Р
Thallium	1			100.0	97.74	97.7	95.03	95.0	Р
Vanadium	1			200.0	204.30	102.2	199.00	99.5	Р
Zinc	I			200.0	205.00	102.5	200.40	100.2	P

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

		CRDL Standard for ICP					
				Initia	al	Fina	1
Analyte	True	Found	%R │	True	Found %R	Found	%R
Lead				6.0	9.03 150.5	7.39	123.2
Mercury	0.2	0.30	150.0				

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

√ab Name:	STL BURLINGTON	Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				Init	CRDL Stan	dard	for ICP Final	1
Analyte	True	Found	%R	True	Found	₹R	Found	%R
Aluminum	<u> </u>			400.0	497.90	124.5		
Antimony				120.0	120.10	100.1		
Arsenic				20.0	20.28	101.4	21.79	109.0
Barium	i i			400.0	382.80	95.7	381.10	
Beryllium				10.0	9.90	99.0	9.92	
Cadmium		İ		10.0	9.86			
Calcium				10000.0	10100.00	101.0	10100.00	
Chromium				20.0	19.43	97.2	21.57	107.8
Cobalt				100.0	95.36	95.4	96.07	96.1
Copper				50.0	48.37	96.7	47.38	94.8
Iron				200.0	244.40	122.2	249.30	
Magnesium				10000.0	9866.00	98.7	9916.00	99.2
Manganese	i			30.0	28.89	96.3	28.67	
Nickel	İ			80.0	78.34	97.9	79.29	99.1
Potassium			***	10000.0	11430.00	114.3	11530.00	
Selenium	i			10.0	10.16	101.6	12.43	124.3
Silver				20.0	19.50	97.5	19.50	97.5
Sodium	i			10000.0	9488.00	94.9	9581.00	95.8
Thallium				20.0	20.61	103.0	17.28	86.4
Vanadium				100.0	96.35	96.4	96.57	96.6
Zinc				40.0	41.24	103.1	38.18	95.4

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name:	STL BURLINGTON	Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

	1			 			<i>-</i>	
				-	CRDL Star	ndard	for ICP Final	,
				Init		0.70		⊥ %R
Analyte	True	Found	%R	True	Found	*K	Found	*K
Aluminum	İ			400.0	472.90	118.2		
Antimony				120.0	124.00	103.3		
Arsenic				20.0	20.22	101.1	20.70	103.5
Barium				400.0	393.80	98.4	393.10	98.3
Beryllium				10.0	10.11	101.1	10.15	101.5
Cadmium				10.0	10.10			100.0
Calcium				10000.0	10420.00	104.2	10410.00	104.1
Chromium				20.0	21.06	105.3	21.12	105.6
Cobalt				100.0	98.58	98.6	97.19	97.2
Copper				50.0	50.31	100.6	50.36	100.7
Iron	İ			200.0	244.40	122.2	260.60	130.3
Lead				6.0	4.15	69.2	4.18	69.7
Magnesium				10000.0	10150.00	101.5	10130.00	101.3
Manganese				30.0	29.92	99.7	29.81	99.4
Nickel	Î			80.0		99.0		
Potassium				10000.0	10780.00	107.8	10760.00	107.6
Selenium				10.0	8.45	84.5	7.99	79.9
Silver	i			20.0	20.79	104.0	19.79	99.0
Sodium				10000.0	9837.00	98.4	9716.00	97.2
Thallium				20.0	22.85	114.2	19.75	98.8
Vanadium				 100.0	99.45	99.4	98.11	98.1
Zinc				40.0	41.49	103.7	41.64	104.1

Control Limits: no limits have been established by EPA at this time

3 BLANKS

Lab	Name:	STL	BURLINGTON	Contract:	23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank		300	C	ontinuing Ca Blank (ug)		Preparation Blank		
Analyte	(ug/L)	c	1	С	2	С	3	С		С	М
Aluminum									18.300	U	P
Antimony									3.800	U	P
Arsenic									2.400	U	P
Barium									7.300	U	P
Beryllium									0.200	U	P
Cadmium									0.300	U	P
Calcium									223.200	Ū	P
Chromium									0.600	Ū	P
Cobalt									1.800	Ū	P
Copper									1.400	U	P
Iron									16.800	Ū	P
Lead	1.7	В	1.5	U	2.1	В	2.4	В	2.095	В	P
Magnesium									181.700	U	P
Manganese									0.700	U	P
Mercury	0.1	В	0.1	Ŭ	0.1	U	0.1	U	0.140	В	CA
Nickel								<u> </u>	2.000	Ŭ	P
Potassium								<u> </u>	250.000	U	P
Selenium								<u> </u>	1.700	ŭ	P
Silver								<u> </u>	0.900	Ŭ	P
Sodium									218.800	U	P
Thallium									-6.031	В	P
Vanadium	l								2.200	U	P
Zinc									5.700	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	บ _	10.000	U	AS

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Preparation Blank Matrix (soil/water): WATER

Initial Calib. Blank				Con	Preparation Blank					
Analyte	(ug/L)	С	1	С	2	С	3	C	С	M
Lead			2.	3 B						P
Mercury			0.	2 B						cv
Cyanide			10.	0 0						AS

3 BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank		-	Continuing Calibration Blank (ug/L)							м
Anary ce	(ug/L)	С	1	С	2	С		С		С	
Aluminum	32.0	В	18.3	U	18.3	ַ	34.8	В			P
Antimony	3.8	Ŭ	3.8		3.8	U	3.8	U			P
Arsenic	2.4	Ū	2.4	U	2.4	U	2.4	U	<u> </u>		P
Barium	7.3	Ū	7.3	ַע	7.3	U	7.3	U			P
Beryllium	0.5	В	0.2	ַ	0.3	В	0.2	Ū			P
Cadmium	0.5	В	0.3	U	0.3	U	0.3	U			P
Calcium	223.2	Ū	223.2	U	223.2	U	223.2	U			P
Chromium	0.6	U	0.6	ַ ט	-1.1	В	0.6	บ			P
Cobalt	1.8	Ū	1.8	ַ ט	1.8	U	1.8	ט			P
Copper	1.4	Ŭ	1.4	Ŭ	1.4	U	1.4	บ			P
Iron	20.6	В	16.8	U	-20.2	В	16.8	U			P
Magnesium	181.7	U	181.7	ַ	181.7	U	181.7	บ			P
Manganese	0.7	U	0.7	ן ט	0.7	ט	0.7	U			P
Nickel	2.0	U	2.0	U	2.0	U	2.0	U			P
Potassium	281.3	В	355.3	В	250.8	В	664.4	В			P
Selenium	1.7	υ	1.7	В	1.7	ט	1.7	ט			P
Silver	0.9	Ū	0.9	ַ	0.9	ט	0.9	U			P
Sodium	218.8	Ū	218.8	U	218.8	U	218.8	Ū			P
Thallium	2.8	Ū	2.8	U	2.8	U	-4.2	В			P
Vanadium	2.2	U	2.2	ָּט	2.2	U	2.2	ט			P
Zinc	5.7	Ū	5.7	U	5.7	U	5.7	Ū			P

3 BLANKS

Lab	Name:	STL	BURLINGTON	 Contract:	23046	

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank (ug/L)	С	1	Con	tinuing Blank (Preparation Blank	С	м			
Aluminum	1 (49, 2)	+	49.2			C		<u></u>			P
Antimony	<u> </u>	++	3.8					<u> </u>			P
Arsenic	-	- 	2.4				·	1			P
Barium	 		7.3		-			i			P
Beryllium		++	0.2		•	++-		i			P
Cadmium		+	0.3					İ			P
Calcium		11	223.2								P
Chromium	i i		0.6								P
Cobalt	İ		1.8		***************************************						P
Copper	İ		1.4			Ti					P
Iron			21.2								P
Magnesium			181.7	ט							P
Manganese			0.7	ַ		i l					P
Nickel			2.0	ט				1			P
Potassium			376.8	В							P
Selenium			2.1	В							P
Silver			0.9	U		Ĺ					P
Sodium			218.8	ע					1		P
Thallium			2.8	U							P
Vanadium			2.2	ש							P
Zinc		T	5.7	ן ט ן							P

3 **BLANKS**

Contract: 23046 Lab Name: STL BURLINGTON

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	M
Aluminum	23.6	U	23.6	ן ט	23.6	ט	23.6	บ			P
Antimony	4.7	Ū	4.7		4.7	U	4.7	U			P
Arsenic	4.8	U	4.8	ן ט	4.8	υĮ	4.8	U			P
Barium	5.9	U	5.9	<u>ט</u>	5.9	U	5.9	U			P
Beryllium	0.2	U	0.2	ן ט	0.2	U	0.2	U			P
Cadmium	0.6	U	0.6	וט	0.6	U	0.6	U			P
Calcium	182.1	U	182.1	ַ	182.1	ט	182.1	U			P
Chromium	1.4	U	1.4	<u>י</u>	1.4	U	1.4	U			P
Cobalt	2.0	Ū	2.0	ַ ט	2.0	Ū	2.0	Ū			P
Copper	2.4	U	2.4	ן ט	2.4	U	2.4	ט			P
Iron	33.3	บ	33.3	<u>ט</u>	33.3	U	33.3	บ			P
Lead	1.3	υ	1.3	U	-2.7	В	-1.3	В			P
Magnesium	178.3	υ	178.3	ַ	178.3	ט	178.3	ַ			P
Manganese	0.7	υ	0.7	וט	0.7	U	0.7	U			P
Nickel	2.1	U	2.1	וט	2.1	U	2.1	U			P
Potassium	393.0	Ū	393.0	ט	393.0	ַ	393.0	U			P
Selenium	3.4	U	3.4	<u>ט</u>	3.4	ט	3.4	Ū			P
Silver	2.2	U	2.2		2.2	U	2.2	U			P
Sodium	472.7	Ū	472.7		472.7	ט	472.7	Ū			P
Thallium	5.7	Ū	5.7	_	5.7	ט	5.7	U			P
Vanadium	2.0	Ū	2.0	י ד	2.0	U	2.0	Ū			P
Zinc	1.0	U	1.0		1.0	Ū	1.0	U			P

3

BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	tinuing Blank	Preparation Blank					
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum			23.6	ן ט							P
Antimony			4.7	U							P
Arsenic			4.8	ן ט							P
Barium			5.9	บ		Ī					P
Beryllium			0.2	<u>ט </u>		ĬI					P
Cadmium			0.6	ין ט							P
Calcium			182.1	וט							P
Chromium			1.4			İ					P
Cobalt			2.0	υl		i i					P
Copper			2.4	υl							P
Iron			33.3			i i				-	P
Lead			1.3	<u>ט</u>		Ti i					P
Magnesium	İ		178.3			i i					P
Manganese	İ		0.7								P
Nickel		T	2.1	<u>ט</u>							P
Potassium		ii	393.0	_							P
Selenium	ĺ		3.4			Ti					P
Silver		Ti	2.2			i i					P
Sodium		 	472.7			ii					P
Thallium		1 1	5.7		u	ii					P
Vanadium	İ	 	2.0		-	Ti					P
Zinc	Ì	1 1	1.0			Ti	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				P

4

ICP INTERFERENCE CHECK SAMPLE

 Lab Name:
 STL BURLINGTON
 Contract: 23046

 Lab Code:
 STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCW003

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

	True	2	Initi	al Found	Final Found				
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB %R	Sol.A	Sol.AB	%R		
Lead	0	44	-3	44.2 100.5	3	50.7	115.2		

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

	Tru	е	Init	ial Found		Fir	nal Found	
Analyte	Sol.A	Sol.AB	Sol.A Sol.AB %R		Sol.A	Sol.AB	%R	
Aluminum	500000	452460	486700	488400.0	107.9	485500	491600.0	108.7
Antimony	0	572	4	642.2	112.3	12	636.5	111.3
Arsenic	0	94	5	105.7	112.4	1	108.6	
Barium	0	466	. 1	495.3	106.3	2	499.6	107.2
Beryllium	0	446	. 0	484.1	108.5	0	480.0	107.6
Cadmium	0	874	2	952.1	108.9	2	955.4	109.3
Calcium	500000	421280	463300	468600.0	111.2	462100	468600.0	111.2
Chromium	0	436	4	476.9	109.4	5	479.5	110.0
Cobalt	0	435	8	471.5	108.4	8	476.6	109.6
Copper	0	473	3	515.6	109.0	3	518.7	109.7
Iron	200000	172540	194400	195100.0	113.1	186700	187700.0	108.8
Magnesium	500000	498160	533200	543900.0	109.2	534600	544700.0	
Manganese	0	428	0	469.3	109.6	0	468.0	109.3
Nickel	0	877	11	961.7	109.7	12	968.0	110.4
Potassium	0	0	434	491.4		516	580.5	
Selenium	0	48	-7	46.7	97.3	-9	40.5	84.4
Silver	0	196	0	213.2	108.8	1	215.5	109.9
Sodium	0	0	-252	-448.7		-302	-401.1	
Thallium	0	95	3	99.8	105.1	0	96.3	101.4
Vanadium	0	417	-2	454.1	108.9	-1	458.1	109.9
Zinc	0	841	8	961.1	114.3	7	937.3	111.5

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCW003</u>

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

	Tru	ıe	Init	ial Found		Fi	nal Found	
Analyte	Sol.A	Sol.AB	Sol.A	Sol.Al	3 %R	Sol.A	Sol.AB	%R
Aluminum	500000	482740	504500	502300.0	104.1	514500	509400.0	105.5
Antimony	0	596	0	614.4	103.1	3	622.3	104.4
Arsenic	0	102	7	106.0	103.9	4	108.8	106.7
Barium	0	503	2	508.0	101.0	2	511.9	101.8
Beryllium	0	482	0	483.7	100.4	-1	496.9	103.1
Cadmium	0	938	1	939.5	100.2	1	967.7	103.2
Calcium	500000	477840	494300	492300.0	103.0	506100	504600.0	105.6
Chromium	0	483	3	482.9	100.0	4	492.4	101.9
Cobalt	0	457	-1	462.4	101.2	-1	470.8	103.0
Copper	0	526	4	521.1	99.1	3	526.8	100.2
Iron	200000	191980	202000	198700.0	103.5	206900	203300.0	105.9
Lead	0	49	2	46.1	94.1	0	47.0	95.9
Magnesium	500000	521880	541000	539600.0	103.4	554900	552900.0	105.9
Manganese	0	474	1	477.0	100.6	1	487.1	102.8
Nickel	0	952	-1	955.1	100.3	-1	976.9	102.6
Potassium	0	0	46	10.0		141	121.2	
Selenium	0	47	3	51.0	108.5	0	48.5	103.2
Silver	0	213	1	216.4	101.6	1	219.2	102.9
Sodium	0	0	-273	-305.2		-242	-161.8	
Thallium	0	89	-7	92.3	103.7	1	90.6	101.8
Vanadium	0	478	0	472.7	98.9	0	481.3	100.7
Zinc	0	998	5	1009.0	101.1	5	1029.0	103.1

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	ON		Contract:	23046			
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCW003	

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

	Aqueou	ıs (ug/L)			Solid	l	(mg/kg)	
Analyte	True	Found	%R	True	Found	С	Limits	%R
Aluminum	51000.0	49630.00	97.3					
Antimony	2000.0	1984.00	99.2					
Arsenic	1050.0	1019.00	97.0					
Barium	500.0	474.10	94.8					<u> </u>
Beryllium	500.0	468.80	93.8					
Cadmium	525.0	482.20	91.8					
Calcium	50000.0	47290.00	94.6					
Chromium	500.0	470.90	94.2					
Cobalt	500.0	466.10	93.2					
Copper	500.0	491.50	98.3					
Iron	50500.0	47490.00	94.0					
Lead	1015.0	1023.00	100.8					
Magnesium	50000.0	47210.00	94.4					
Manganese	500.0	465.40	93.1					
Mercury	1.0	1.03	103.0					
Nickel	500.0	464.60	92.9			1		<u>.</u>
Potassium	50000.0	48340.00	96.7					
Selenium	525.0	495.30	94.3					
Silver	500.0	399.30	79.9					
Sodium	50000.0	49250.00	98.5]
Thallium	550.0	514.10	93.5					
Vanadium	500.0	468.20	93.6					
Zinc	500.0	462.70	92.5					
Cyanide	120.0	114.44	95.4					

LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTO	ON	Contract: 23046	
Lab Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCW003
Solid LCS	Source:	178		

Aqueous LCS Source: Inorganic Ventures

	Aqueous (ug/L)			Solid (mg/kg)						
Analyte	True	Found	%R	True	Found	С	Limits	%R		
Aluminum	51000.0	49940.00	97.9							
Antimony	2000.0	1999.00	100.0							
Arsenic	1050.0	1030.00	98.1					<u> </u>		
Barium	500.0	475.80	95.2							
Beryllium	500.0	474.00	94.8		l					
Cadmium	525.0	488.60	93.1					<u> </u>		
Calcium	50000.0	47870.00	95.7					<u> </u>		
Chromium	500.0	476.40	95.3				<u> </u>			
Cobalt	500.0	472.00	94.4							
Copper	500.0	493.00	98.6							
Iron	50500.0	48030.00	95.1							
Lead	1015.0	1036.00	102.1					<u> </u>		
Magnesium	50000.0	47800.00	95.6							
Manganese	500.0	470.10	94.0		ļ					
Mercury	1.0	0.96	96.0					<u> </u>		
Nickel	500.0	472.00	94.4							
Potassium	50000.0	48460.00	96.9							
Selenium	525.0	496.90	94.6							
Silver	500.0	401.80	80.4							
Sodium	50000.0	49740.00	99.5			1				
Thallium	550.0	519.30	94.4					<u> </u>		
Vanadium	500.0	473.20	94.6							
Zinc	500.0	466.90	93.4							
Cyanide	120.0	131.67	109.7		1					

9 ICP SERIAL DILUTIONS

SAMPLE NO.

AJAXSTPWP04FL

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Matrix (soil/water): WATER Level (low/med): LOW

Analyte	Initial Sample ··· Result (I)	Serial Dilution Result (S)	% Differ- ence	Q	м		
Aluminum	28.02	В	118.00	U	100.0		P
Antimony	4.70	ט	23.50	U			P
Arsenic	11.47		24.00		100.0		₽
Barium	84.13	B	83.50	В	0:7		P
Beryllium	0.20	ן ט	1.00	U		<u> </u>	P
Cadmium	0.60	U	3.00	U			P
Calcium	44160.00	İ	44670.00		1.2		P
Chromium	1.40	ן ט	7.00	U			P
Cobalt	2.00	ט	10.00	ט			P
Copper	2.40	U	12.00	ט	1		P
Iron	34.91	В	166.50	Ū	100.0		P
Lead	1.30	U	6.50	Ū			P
Magnesium	20010.00	İ	20210.00	В	1.0		P
Manganese	15.16	Ì	14.95	В	1.4		P
Nickel	2.10	<u>י</u> ד	10.50	Ū			P
Potassium	2483.00	В	2596.00	В	4.6		P
Selenium	3.40	U	17.00	ט			P
Silver	2.20	Ū	11.00	U			P
Sodium	7418.00	1	6821.00	В	8.0		P
Thallium	5.70	U	28.50	ט			P
Vanadium	2.00	ָ <u>ט</u>	10.00	U			P
Zinc	4.98	В	8.30	В	66.7		P

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	Contract: 23046								
Lab Code: STLVT C	ase No.: 23	046	SAS No.:		SD	SDG No.: GCW003			
ICP ID Number:		****	Date:	7/1/2003					
Flame AA ID Number: <u>La</u> Furnace AA ID Number: _	chat Cyanid	le							
	Analyte	Wave- length	Back- ground	CRDL (ug/L)	IDL (ug/L)	м			

Cyanide

Comments:

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	N		Contract	t: <u>23046</u>			
Lab Code: STLVT C	ase No.: <u>230</u>	046	SAS No.:		_ SDG	No.	: GCW003
ICP ID Number:			Date:	7/1/2003			
Flame AA ID Number: <u>Le</u> Furnace AA ID Number: _	eman Hydra	AA					
rurnace AA ID Number		_					
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М	•
	Mercury	253.70		0.2	0.10	CA	

Comments:	

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCW003
ICP ID Number: TJA ICAP 4	Date: 7/1/2003
Flame AA ID Number:	

Furnace AA ID Number:

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	. IDL (ug/L)	м
Aluminum	308.215		200	23.6	P
Antimony	206.838		60	4.7	P
Arsenic	189.042		10	4.8	P
Barium	493.409		200	5.9	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.6	P
Calcium	317.933		5000	182.1	P
Chromium	267.716		10	1.4	P
Cobalt	228.616		50	2.0	P
Copper	324.754		25	2.4	P
Iron	271.441		100	33.3	P
Lead	220.353		3	1.3	P
Magnesium	279.078		5000	178.3	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.1	P
Potassium	766.491		5000	393.0	P
Selenium	196.026		5	3.4	P
Silver	328.068		10	2.2	P
Sodium	330.232		5000	472.7	P
Thallium	190.864		10	5.7	P
Vanadium	292.402		50	2.0	P
Zinc	213.856		20	1.0	P

Comments:					

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO	Contract: 23046						
Lab Code: STLVT C	ase No.: 230	046	SAS No.	:	_ SDG	No.	: GCW003
ICP ID Number: <u>TJA ICAP</u>	6		Date:	7/1/2003			
Flame AA ID Number: Furnace AA ID Number: _	in the latest and the						
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М	
	Lead	220.353		3	1.5	P	·

Comments:	

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCW003
ICP ID Number: TJA ICAP 6	Date: 7/1/2003
Flame AA ID Number:	

Furnace AA ID Number:

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м
Aluminum	308.215	_	200	18.3	P
Antimony	206.838		60	3.8	P
Arsenic	189.042		10	2.4	P
Barium	493.409		200	7.3	P
Beryllium	313.042		5	0.2	P
Cadmium	226.502		5	0.3	P
Calcium	317.933		5000	223.2	P
Chromium	267.716		10	0.6	P
Cobalt	228.616		50	1.8	P
Copper	324.754		25	1.4	P
Iron	271.441		100	16.8	P
Magnesium	279.079		5000	181.7	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.0	P
Potassium	766.491		5000	250.0	P
Selenium	196.026		5	1.7	P
Silver	328.068		10	0.9	P
Sodium	330.232		5000	218.8	Р
Thallium	190.864		10	2.8	Р
Vanadium	292.402		50	2.2	P
Zinc	206.200		20	5.7	P

Comments:		 	 	
	4			

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON			Contract:	23046		<u></u>
Lab	Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.: GCW003	

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length	Interelement Correction Factors for:					
Analyte	(nm)	Al	Ca	Fe	Mg	Ва	
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.04	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000	
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.68	0.0000000	0.0000000	0.0008950	0.0000000	0.0000000	
Cadmium	226.50	0.0000000	0.0000000	0.0000330	0.0000000	0.0000000	
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0004320	
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Lead	220.35	0.0006300	0.0000000	0.0000090	0.0000000	0.0000000	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000200	0.0000000	
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Selenium	196.03	0.0000000	0.0000000	-0.0000220	0.0000000	0.0000000	
Silicon	288.16	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium	190.86	0.0000200	0.000000	-0.0000900	0.0000000	0.0000000	
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.40	0.0000000	0.000000	0.0000490	0.0000000	0.0000000	
Zinc	213.86	0.0000250	0.000000	0.0000630	0.0000000	0.0000000	

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab 1	Name:	STL BURLINGTON	 Contract:	23046	
Lab 1	Name:	STL BURLINGTON	 Contract:	23046	•

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length	Interelement Correction Factors for:					
Analyte	(nm)	Co	Cr	Cu	Mn	Мо	
Aluminum	308.22	0.0000000	0.000000	0.0000000	0.0000000	0.0072400	
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800	
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380	
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.68	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Chromium	267.72	0.0001150	0.000000	0.0000000	0.0000000	0.0001350	
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380	
Copper	324.75	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Iron	271.44	0.1059800	0.0000000	0.0000000	0.0000000	0.0036200	
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540	
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Nickel	231.60	-0.0004300	0.000000	0.0000000	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Selenium	196.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750	
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	-0.0007920	
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000	
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.40	0.0000000	0.000000	0.0000000	0.0000000	-0.0160000	
Zinc	213.86	0.0000000	0.000000	0.0003300	0.0000000	0.0000000	

Comments:		 	 	ANTO:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Nam	e: STL	BURLINGTON		Contract:	23046	
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Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- Interelement Correction Factors for:						
Analyte	length (nm)	Ni	Sb	Sn	V	Zn	
Aluminum	308.22	0.0000000	0.0000000	0.1440400	0.0000000	0.0000000	
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0006280	0.0000000	
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.75	0.0000000	0.0000000	0.0000000	-0.000192	0.0000000	
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0237000	0.0000000	
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.0000000	
Silicon	288.16	0.0000000	0.000000	-0.1212200	0.0000000	0.0000000	
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.1177000	
Thallium	190.86	0.0000000	0.000000	0.0000000	0.0025400	0.000000	
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc	213.86	0.0052400	0.000000	0.0000000	0.0000000	0.0000000	

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON		Contract:	23046	_
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Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

ICP ID Number: <u>TJA ICAP 6</u> Date: <u>10/1/2002</u>

	Wave- length	Interelement Correction Factors for:					
Analyte	(nm)	Al	Ca	Fe	Mg	Ag	
Aluminum	308.215	0.0000000	0.0000000	-0.0002180	0.0000000	0.0000000	
Antimony	206.838	0.0000080	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.042	0.0000170	0.0000000	-0.0000590	0.0000000	0.0000000	
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.678	0.0000000	0.0000000	-0.0000740	0.0000000	0.0000000	
Cadmium	226.502	0.0000010	0.0000000	0.0000590	0.0000000	0.0000000	
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium	267.716	0.0000100	0.0000000	-0.0000200	0.0000060	0.0000000	
Cobalt	228.616	0.0000000	0.0000000	-0.0000400	0.0000000	0.0000000	
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Iron	271.441	0.0001740	0.0000000	0.0000000	-0.001587	0.0000000	
Lead	220.353	-0.0000300	0.0000000	0.0000550	-0.000006	0.0000000	
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000200	0.0000000	
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Nickel	231.604	0.0000000	0.000000	-0.0000520	0.0000000	0.0000000	
Phosphorus	178.287	0.0000070	0.000000	0.0000000	0.0000000	0.0000000	
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.026	0.0000000	0.000000	-0.0007500	0.0000000	0.0000000	
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Strontium	421.552	0.0000000	0.0000240	0.0000000	0.0000000	0.0000000	
Thallium	190.864	0.0000080	0.000000	-0.0001100	0.0000000	0.0000000	
Tin	189.989	0.0000090	0.000000	-0.0000750	0.0000000	0.0000000	
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000140	0.0000000	
Vanadium	292.402	0.0000000	0.000000	0.0000030	0.0000040	0.0000000	
Zinc	206.200	0.0000300	0.000000	-0.0000600	0.0000000	0.0000000	

Comments:			

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

ICP ID Number: <u>TJA ICAP 6</u> Date: <u>10/1/2002</u>

	Wave-	Interelement Correction Factors for:					
Analyte	length (nm)	As	В	Be	Cd	Со	
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.042	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.000000	
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.000000	
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.754	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	-0.0082960	
Lead	220.353	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Phosphorus	178.287	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	-0.0001900	
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Thallium	190.864	0.0000000	0.000000	0.0000000	0.0000000	0.0002350	
Tin	189.989	0.0000000	0.000000	-0.0004370	0.0000000	0.0000000	
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Zinc	206.200	0.0000000	0.0000000	0.0000000	0.0000000	0.000000	

Comments:		 	- <u></u>	
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11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name:	STL BURLINGTON	Contract:	23046
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Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

ICP ID Number: TJA ICAP 6 Date: 10/1/2002

	Wave-	Interelement Correction Factors for:				
Analista	length					
Analyte	(nm)	Cr	Cu	Mn	Na	Ni
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0078510	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	-0.0002840	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron.	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001750
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0008900	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000800
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	-0.0007400	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	-0.0004500	0.0000000	0.0000000
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Zinc	206.200	0.0044570	0.0000000	0.0000000	0.0000000	0.0000000

Comments:	÷	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

ICP ID Number: TJA ICAP 6 Date: 10/1/2002

	Wave-	Wave- Interelement Correction Factors for:				
Analyte	length	1	.n.cererement	COLLECTION		
Miatyce	(nm)	Pb	Sb	Se	Si	Tl
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Thallium	190.864	-0.0003500	0.000000	0.0000000	0.0000000	0.000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Zinc	206.200	0.0003900	0.000000	0.0000000	0.0000000	0.000000

Comments:	 	 1	 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON		Contract: 23046	
Lab	Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCW003
ICP	ID Number: TJA ICAP (5	Date: <u>10/1/2002</u>	

	Wave- length	I	nterelement	Correction	Factors	for:
Analyte	(nm)	v	Zn			
Aluminum	308.215	0.0173200	0.000000		<u> </u>	
Antimony	206.838	-0.0012700	0.000000			
Arsenic	189.042	-0.0002800	0.0000000			
Barium	493.409	0.0000000	0.0000000			
Beryllium	313.042	0.0004800	0.000000		<u> </u>	
Boron	249.678	0.0000000	0.0000000			
Cadmium	226.502	0.0000000	0.0000000			
Calcium	317.933	0.0000000	0.0000000			
Chromium	267.716	-0.0003600	0.000000		ļ	
Cobalt	228.616	0.0000000	0.0000000			
Copper	324.754	0.0000000	0.0000000			
Iron	271.441	0.0081200	0.0000000			
Lead	220.353	-0.0000850	0.0000000			
Magnesium	279.079	0.0000000	0.0000000			
Manganese	257.610	0.0000000	0.0000000			
Molybdenum	202.030	0.0000000	0.0000000			
Nickel	231.604	0.0000000	0.0000000			
Phosphorus	178.287	0.0000000	0.0164830			
Potassium	766.491	0.0000000	0.000000			
Selenium	196.026	0.0000000	0.000000			
Silver	328.068	-0.0003350	0.000000			
Sodium	330.232	-0.1479730	0.6581000			
Strontium	421.552	0.0000000	0.000000			
Thallium	190.864	0.0014900	0.000000			
Tin	189.989	0.0000000	0.0000000			
Titanium	334.941	0.0000000	0.000000			
Vanadium	292.402	0.0000000	0.0000000			
Zinc	206.200	-0.0004730	0.000000			

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

lah Name	STL BURLINGTON	Contract: 23046	
Lab Name:	21F BOKETINGTON	001101000	

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

ICP ID Number: TJA ICAP 4 Date: 7/1/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
L Aluminum	10.00	1000000.0	 P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	10000.0	P
Iron	10.00	1000000.0	P
Lead	10.00	10000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	Į P
Nickel	10.00	10000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	5000.0	P

Comments:	

12 ICP LINEAR RANGES (QUARTERLY)

Lab Name: STL BURLINGTO	N	Co	ontract: 23046		
Lab Code: STLVT	Case No.: 2	3046 SA	AS No.:	SDG No.:	GCW003
ICP ID Number: TJA ICA	? 6		Date: <u>7/1/2003</u>		
	Analyte	Integ. Time (Sec.)	Concentration (ug/L)	М	
	Lead	10.00	50000.0	P	

Comments:

12 ICP LINEAR RANGES (QUARTERLY)

Lab	Name:	STL BURLINGTON	Contract	23046

Lab Code: STLVT Case No.: 23046 SAS No.: _____ SDG No.: GCW003

ICP ID Number: TJA ICAP 6 Date: 7/1/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	100000.0	P
Iron	10.00	1000000.0	P
Magnesium	10.00	600000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	50000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	10000.0	P

Comments:	<u> </u>	

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: AS

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXADSFW07	7/30/2003	50.0	50.0
AJAXPDSFW06	7/30/2003	50.0	50.0
AJAXSTPWP04	7/30/2003	50.0	50.0
AJAXSTSFW04	7/30/2003	50.0	50.0
AJAXSTSFW52	7/30/2003	50.0	50.0
GRANSTSFW54	7/30/2003	50.0	50.0
ICV	7/30/2003	. 50.0	50.0
LCS0730B	7/30/2003	. 50.0	50.0
LCSD0730B	7/30/2003	50.0	50.0
MAGNSTPWP01	7/30/2003	50.0	50.0
MAGNSTSFW01	7/30/2003	50.0	50.0
MAGNSTSFW02	7/30/2003	50.0	50.0
PBW0730B	7/30/2003	50.0	50.0

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXADSFW07	8/5/2003	100.0	100.0
AJAXADSFW07F	8/5/2003	100.0	100.0
AJAXPDSFW06	8/5/2003	100.0	100.0
AJAXPDSFW06F	8/5/2003	100.0	100.0
AJAXSTPWP04F	8/5/2003	100.0	100.0
AJAXSTSFW04	8/5/2003	100.0	100.0
AJAXSTSFW04F	8/5/2003	100.0	100.0
AJAXSTSFW52	8/5/2003	100.0	100.0
AJAXSTSFW52F	8/5/2003	100.0	100.0
GRANSTSFW54	8/5/2003	100.0	100.0
GRANSTSFW54F	8/5/2003	100.0	100.0
LCSDW0805B	8/5/2003	100.0	100.0
LCSW0805B	8/5/2003	100.0	100.0
MAGNSTPWP01F	8/5/2003	100.0	100.0
MAGNSTSFW01	8/5/2003	100.0	100.0
MAGNSTSFW01F	8/5/2003	100.0	100.0
MAGNSTSFW02	8/5/2003	100.0	100.0
MAGNSTSFW02F	8/5/2003	100.0	100.0
PBW0805B	8/5/2003	100.0	100.0

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PREPARATION LOG

Lab	Name:	STL BURLINGTO	NO	Contract:	23046	
Lab	Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.:	GCW003

Method: P

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
AJAXADSFW07	8/8/2003	100.0	100.0
AJAXADSFW07F	8/8/2003	100.0	100.0
AJAXPDSFW06	8/8/2003	100.0	100.0
AJAXPDSFW06F	8/8/2003	100.0	100.0
AJAXSTPWP04F	8/8/2003	100.0	100.0
AJAXSTSFW04	8/8/2003	100.0	100.0
AJAXSTSFW04F	8/8/2003	100.0	. 100.0
AJAXSTSFW52	8/8/2003	100.0	100.0
AJAXSTSFW52F	8/8/2003	100.0	100.0
GRANSTSFW54	8/8/2003	100.0	100.0
GRANSTSFW54F	8/8/2003	100.0	100.0
LCSDW0808B	8/8/2003	100.0	100.0
LCSW0808B	8/8/2003	100.0	100.0
MAGNSTPWP01F	8/8/2003	100.0	100.0
MAGNSTSFW01	8/8/2003	100.0	100.0
MAGNSTSFW01F	8/8/2003	100.0	100.0
MAGNSTSFW02	8/8/2003	100.0	100.0
MAGNSTSFW02F	8/8/2003	100.0	100.0
PBW0808B	8/8/2003	100.0	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 7/30/2003 End Date: 7/30/2003

EPA													P	lna	ly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	S	A	N	T	V	Z	С
No.				L	В	s	A	E	D	A	R	0	U	E	В	G	N	G	I		E	G	A	L		N	N
s0	1.00	1650																									X
S10	1.00	1651															L		L	L						Ш	X
s30	1.00	1652													<u> </u>			<u> </u>	Ļ						Ш	Ш	×
S50	1.00	1653																			L	<u> </u>				Ш	[]
S100	1.00	1654		l											<u> </u>			L			<u>L</u>				Ш		2
S200	1.00	1655																	L			_			Ŀ	Ш	2
s300	1.00	1656					L													L	L	Ļ_					2.
ICV	1.00	1658						<u> </u>						<u> </u>								L			<u> </u>		2
ICB	1.00	1659											<u> </u>		L		L				L	<u> </u>				_	2
LRS	1.00	1700		l				L.												L.		<u> </u>			<u> </u>	L] 3
LRS	1.00	1701				$oxedsymbol{oxed}$									L		Ĺ	L	$oxed{oxed}$	L		L	L			L	2
CCV	1.00	1702										L	_			L		<u> </u>		L			<u> </u>		L	L	7
ССВ	1.00	1703									L											L				L	[2
PBW0730B	1.00	1704					l								L		<u> </u>	<u> </u>		L	\perp		<u> </u>	L		L	3
ZZZZZZ	1.00	1705																		L			<u> </u>				L
LCS0730B	1.00	1706																		L					L	L	13
AJAXSTPWP04	1.00	1707																	L	L			L			L	<u> </u> 2
AJAXSTSFW04	1.00	1708		Î			Ī														L	<u> </u>					13
AJAXPDSFW06	1.00	1709		Î			Ī.,									L										L	12
AJAXADSFW07	1.00	1710					Ī								L								<u> </u>	L	<u>L</u>	<u> </u>	13
AJAXSTSFW52	1.00	1711														_										L	Ŀ
GRANSTSFW54	1.00	1711				Π														_						L]:
MAGNSTSFW01	1.00	1712					Ī											١.				L		L			Ŀ
CCV	1.00	1713						Ī		1										L						L	<u> </u>
ССВ	1.00	1714		T	1		Ī																L			L	<u> </u>
MAGNSTPWP01	1.00	1715		Π	Ī		Ī															1_			_		<u> </u>
MAGNSTSFW02	1.00	1716			Ī		Ī													L		_		ļ.,		L	<u> </u>
ZZZZZZ	1.00	1717				Π									<u></u>	L		L	L								L
ZZZZZZ	1.00	1718					Ī					L				L		上	L			上		L		L	
ZZZZZZ	1.00	1719		T		1			Π																1_	L	L
ZZZZZZ	1.00	1720		Т		1				Ī		\Box									L	\perp	L			L	\perp
ZZZZZZ	1.00	1721		Ī		Π	Ī			Π											L		L				\perp
ZZZZZZ	1.00	1722		Τ															L			L				L	Ĺ
ZZZZZZ	1.00	1723		Ì		Ī			\prod																	L	Ţ
ZZZZZZ	1.00	1724			T			T	Ι		Ī					L									L	L	
CCV	1.00	1725		Π	T		Ī	Π								L				L						L	L
ССВ	1.00	1726	İ	T				T		Ī		Ī												L		L	
ZZZZZZ	1.00	1727	1	T	†	T	T	Ť	Ī	Ī	ĺ	Î	Ī	T	Ī	Π	T	T	T		ī		T	Π	T		Ī

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 7/30/2003 End Date: 7/30/2003

EPA											A	na	1y	te	s								
Sample No.	D/F	Time	% R	A L	S B	A S	B E	l	C A	H	C U	ı	P B	M G		H G		S E	A G	T L	ı	-1	
ZZZZZZ	1.00	1728																				\Box	
ZZZZZZ	1.00	1729																				$oldsymbol{\perp}$	
LCSD0730B	1.00	1730															_					$oldsymbol{\perp}$	Х
CCV	1.00	1731															L						X
ССВ	1.00	1732																					X

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 8/20/2003 End Date: 8/20/2003

Start Date: <u>8/20/</u>																											
EPA	1												A	na	lyt	es	3										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	A	N	T	v	Z	С
No.				L	В	s	A	E	D		R	0	U	E	В	G	И	G	I		E	G	A	L		И	N
S0	1.00	0857							-						x		T										
S	1.00	0901																									
S	1.00	0904				Ì									х	Ī											
S	1.00	0908										Ī					Î										
LRS	1.00	0912				İ	İ								х		Î										
LRS	1.00	0917		Ī	Ì										х	Ī											
LRS	1.00	0921				Ī									х	Ī											
ICV	1.00	0925						Г	Ī						х												
ICB	1.00	0929		1	İ	Ī									х												
ICSA	1.00	0933				ĺ			Ì						х												
ICSAB	1.00	0937				Ī									х												
CRI	1.00	0941							Ì						х												
CCV	1.00	0946					İ								х												
ССВ	1.00	0950				İ	İ						i		х									Ī			Γ
PBW0808B	1.00	0954		İ				İΤ			Ī				х												Π
LCSW0808B	1.00	0958		İ			İ	İ			Π				х									Π			
LCSDW0808B	1.00	1002		İ	<u> </u>	İ	1			Ì	Ì	Г			х						Γ						
ZZZZZZ	1.00	1006					Ì		Ī	Ī		İ															Γ
ZZZZZZ	5.00	1010		İ			Ī	ĺ		İ		İ			П												
AJAXSTSFW04	1.00	1014				İ	İ		Π	Ī	Ì	İ	Î		х						Ī						
AJAXSTSFW04F	1.00	1018					İ			İ	Ī	1			х												
AJAXPDSFW06	1.00	1022		Ī		T	İ		Ī	Ī			1	Ì	x												
AJAXPDSFW06F	1.00	1026								Ī		j	Ī		х												
AJAXADSFW07	1.00	1030		T	Ī				Γ	Ī			İ	1	х												L
CCV	1.00	1034			Γ	П	Î			İ			Ī		х												
ССВ	1.00	1039		İ		Ī	Ī			Ī	Ī		Π		х												L
AJAXADSFW07F	1.00	1043		T		İ	İ	Ī	Π	İ	Ī	Π	Π		х												
AJAXSTSFW52	1.00	1047	Ì	1		Ì	ĺ			Ī	Ì				x												L
ZZZZZZ	1.00	1051			İ	İ		T	İ	Î	Ī		Ī														\Box
GRANSTSFW54		1055		Π	Ì		Ī	Π		Ī	Ī	Π	Ī		x						Π	Π					
ZZZZZZ	1.00	1059		T			Ī		Ī	Ī	Π	Ì	ĺ						Π								L
MAGNSTSFW01	1.00	1103				İ	İ			ĺ			Π		x			Ī	Π								匚
MAGNSTSFW01F	1.00	1107					İ	T	Π	Ī	Ì	İ	Ī		Х						Ī		Π				\Box
MAGNSTPWP01F		1111	<u> </u>	T	Г	1	Î	1	Ī	T	İ	T	Ī		х			Ī									
MAGNSTSFW02	1.00	1115	<u> </u>	T	Ī	İ	İ	T	Ī	Ī	Ī	Π	Ī	Ī	х					Ī							oxdot
MAGNSTSFW02F	1.00	1119		T		 	T	T	T	ĺ	Ī	İ	Ī	Π	х					Π	1	Π		Ī			Γ
CCV		1123		Τ	1	T	ĺ	T	T	ĺ	İ	İ	Ī	ĺ	х				ĺ		Ī			Ī		\prod	
ССВ		1127	1	1	İ		T	1	İ	Ī	Ī	1	Ī	Ī	x				Γ	Π	Ī	Π	Π			Π	Γ

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON

Contract: 23046

Lab Code: STLVT

Case No.: 23046

SAS No.: SDG No.: GCW003

Instrument ID Number: TJA ICAP 6

Method: P

Start Date: 8/20/2003 End Date: 8/20/2003

EPA											A	na	ly	te	s						
Sample No.	D/F	Time	% R	A	S B	A S	B A	B E	C A	С 0	ı i			M G	М	H G					 C N
ICSA	1.00	1132											X				·				_
ICSAB	1.00	1136											Х					Ш			
CRI	1.00	1140	100				Π	Π					X								
CCV	1.00	1144											Х		<u> </u>						
CCB	1.00	1148											Х								

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 8/21/2003 End Date: 8/21/2003

EPA													A	na	lyt	es											
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	M I	м	н	N	ĸ	S	A	N	T	V	z	С
No.				L	В	s	А	E	D	A	R	0	U	E	В	G 1	N	G	I		E	G	A	L		N	N
S0	1.00	0802		Х	Х	Х	х	Х	Х	Х	Х	Х	х	Х		X	Χ		x	Х	х	Х	X.	Х	Х	Х	
S	1.00	0806		x						x				x		K	\perp			Х			х	L		Ш	<u></u>
S	1.00	0809			х	Х										\perp	\perp				Х	L		х		Ш	<u></u>
S	1.00	0813					x	X	X		Х	x_	X				x		x			Х		<u> </u>	х	Х	<u></u>
LRS	1.00	0818		x	Х	Х	X	Х	X	х	X	х	х	х		x	x		x					Х		Х	L.
LRS	1.00	0822		Х	Х	х	$ \mathbf{x} $	х	X	х	X	x	х	х		X	x		Х	Х	X	Х	Х	Х	х	X	L
LRS	1.00	0826		Х	Х	Х	Х	Х	Х	Х	X	x	х	х		x	x	\perp	x	Х	X	Х	Х	X	х	Х	<u></u>
ICV	1.00	0830		х	Х	х	Х	х	Х	Х	X	х	x	х		_	x		x			Х		_	х	Х	L
ICB	1.00	0835		х	Х	х	Х	х	Х	Х	Х	х	х	х			x		x		<u> </u>	<u> </u>	ــــــــــــــــــــــــــــــــــــــ	Х	х	Х	L
ICSA	1.00	0839		Х	Х	Х	Х	Х	Х	Х	Х	x	Х	х		x	x		x	Х	Х	Х	Х	Х	х	Х	L.
ICSAB	1.00	0843		Х	Х	х	Х	Х	Х	Х	X	х	х	х		x	x		x	Х	_	Х		X	х	Х	L
CRI	1.00	0847		Х	Х	х	Х	x	х	х	Х	x	х	x			x		x	X	Х	X	!	Х	х	Х	L
CCV	1.00	0851		X	Х	х	X	Х	Х	х	X	х	Х	х			x	\perp	х			<u> </u>	. -	X	х	Х	L.
CCB	1.00	0855		Х	х	х	Х	Х	Х	Х	Х	х	х	х		x	x	_	x			Х	-		х	Х	L.
PBW0808B	1.00	0900		Х	х	x	X	х	Х	Х	Х	x	х	x		x	x		х		<u> </u>	X	<u> </u>		х	Х	<u>L</u>
LCSW0808B	1.00	0904		Х	Х	Х	X	Х	Х	Х	Х	x	x	x		x	х		X	Х	X	х	Х	X	х	х	Ļ
LCSDW0808B	1.00	0908		x	х	х	X	Х	X	Х	Х	х	x	х		x	x		х	Х	X	Х	x	Х	Х	Х	L
ZZZZZZ	1.00	0912							Ŀ							_	\perp	\bot			L	<u> </u>		L	<u> </u>	$oxed{oxed}$	L
ZZZZZZ	5.00	0916					$oxed{oxed}$	<u> </u>			L		<u> </u>								L	L	L	<u> </u>	<u> </u>	$ldsymbol{f eta}$	匚
AJAXSTSFW04	1.00	0920		x	X	x	X	Х	X	x		x	X	х		_	X	<u>-</u>	х		ــــــــــــــــــــــــــــــــــــــ	-		Х	-		╌
AJAXSTSFW04F	1.00	0924	<u> </u>	x	X	X	X	Х	Х	X		х	Х	х		_	Х	<u> </u>	X		ь_	_		Х	+	X	<u>ب</u>
AJAXPDSFW06	1.00	0928	<u> </u>	x	X	x	Х	x	X	x	_	х	х	х	—		X	_	Х	_		x			X	Х	╀
AJAXPDSFW06F	1.00	0932		X	Х	Х	X	X	X	x	X	х	х	x	بـــــا	-	X		Х			X	<u> </u>		X	X	<u> </u>
AJAXADSFW07	1.00	0936		x	X	x	X	х	X	Х		х	x	x		-	x	\perp	X			X			x	Х	!
CCV	1.00	0940		Х	x	x	X	x	X	Х	<u> </u>	x	x	x		x	X		X		_	<u> </u>	<u></u>	X	!	X	!
ССВ	1.00	0944		x	x	x	x	x	X	X	Х	х	X	x		x	X		X	_		x	-		x	X	<u> </u>
AJAXADSFW07F	1.00	0948		x	x	x	X	x	X	x	X	x	x	х		x	Х	_	Х			x	-		x	X	٠
AJAXSTSFW52	1.00	0952		X	x	x	X	x	Х	x		x	x	x		x	Х	!	х	_	_	-	-	X	+	-	<u> </u>
AJAXSTSFW52F	1.00	0956		X	x	x	<u> x</u>	x	X	X	X	x	X	х		х	X		Х	<u> </u>	1	Х	<u> </u>	x		•	<u> </u>
GRANSTSFW54	1.00	1000		x	x	x	X	X	x	X	X	x	x	х	-		Х		x	_				_	x		
GRANSTSFW54F	1.00	1005		X	X	X	X	X	Х	X	X	x	x	x	ــــــــــــــــــــــــــــــــــــــ		Х		x		_	-	_	_	x		
MAGNSTSFW01	1.00	1009		X	X	Х	X	+		X	_	+		х			х	 †			_		-		x	-	
MAGNSTSFW01F	1.00	1013		x	Х	x	X	X	X	X	_		•	x	!	x	x	ļ	Х	_	_		-		x		
MAGNSTPWP01F	1.00	1017		x	X	x			+	X	_	х		x		x	х		X			-	+		X	+	
MAGNSTSFW02	1.00	1021		x	<u> </u>	x		X	X	X		$\cdot -$	-	-		x	х		X	<u> </u>		+-	+	-	x		+-
MAGNSTSFW02F	1.00	1025		X	1	x			-	X		х	-	•		х	х		X	!		-	+	-	X		-
CCV	1.00	1029		X	x	X	X	X	X	X	X	х	x	x	<u> </u>	x	Х	_	Х		-	_			x	-	_
CCB	1.00	1033		X	X	x	X	X	X	$ \mathbf{x} $	X	x	x	X		x	Х		X	X	X	X	X	X	x	X	4

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 8/21/2003 End Date: 8/21/2003

EPA													A	na	ly'	te:	s										
Sample No.	D/F	Time	% R	A L	S B	A S	B A	B E	C D	C A			C U	F E	P B			H G	N		S E	A G	N A		1 1	Z N	
ZZZZZZ	1.00	1037																								Ш	·
ZZZZZZ	5.00	1041					1																			Ш	
ZZZZZZ	10.00	1045																								Ш	
ZZZZZZ	50.00	1049																								Ш	
ICSA	1.00	1053		x	х	х	Х	х	Х	Х	Х	х	х	х		X	х		X	Х	X	Х	Х	X	х	Х	
ICSAB	1.00	1058		x	х	х	X	x	X	x	Х	x	х	x		X	х		Х	X	X	Х	х	X	х	X	
CRI	1.00	1102		х	х	х	x	х	x	x	х	х	x	x		X	x		Х	X	Х	X	Х	X	x	x	
CCV	1.00	1106		x	х	х	X	x	x	x	Х	x	х	х		X	Х		X	X	X	X	Х	X	x	x	<u>_</u>
ССВ	1.00	1110		х	Х	х	X	X	X	X	х	х	х	х		X	x		Х	Х	Х	X	х	X	х	x	ĺ

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/8/2003 End Date: 9/9/2003

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EPA	D/F	Time	% R			_ 1			_			_								7.	_	_	1	I	77	7	_
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но.				L	В	S		E		Α					I												
S0	1.00	2204		Х	Х	x	Х	X		х	х	Х	-	_	_	_	Х	_	Х		-	X		Х	X	Х	
S	1.00	2209		х						Х		Ш	_	х	_	X			_	X		L.,	х			_	
S	1.00	2213	,		Х	Х						Ш			Х		_	_ļ	_		х		Щ	Х	_		
S	1.00	2217					Х	Х				х	_			_	Х	_	X	Ш		Х		_	х		
LRS	1.00	2223		Х	Х		Х	Х	Х		_	Х	_	Х		_	Х	_	Х			_		X	-	Х	
LRS	1.00	2228		х	Х	х	Х	Х	X	x		х			Х		Х		Х		_			Х			
LRS	1.00	2233		$ \mathbf{x} $	Х	х	Х	Х	Х	х	X	х	x	х	х	X	Х		Х		_			X	_	Х	<u></u>
ICV	1.00	2238		Х	Х	Х	Х	X	X	Х	Х	x	Х	х	x	X	X		X					х	х	Х	<u></u>
ICB	1.00	2243		х	Х	Х	Х	X	X	Х	X	x	х	х	Х	X	X		Х			Щ.	х		Х	Х	
ICSA	1.00	2248		х	х	х	х	х	X	x	Х	x	x	х	х	X	х		Х			1	x	_	х	Х	_
ICSAB	1.00	2254	***	х	Х	х	х	х	Х	х	Х	х	х	Х	Х	X	х		Х	X	Х	Х	х	Х	х	Х	L
CRI	1.00	2259		х	х	х	Х	х	Х	x	X	x	х	х	х	X	х		Х	X	Х	х	x	Х	x	Х	L
CRILOW	1.00	2304		х	х	х	х	х	Х	х	Х	х	х	х	х	Х	X		Х	Х	Х	x	Х	х	x	X	L
CCV	1.00	2309		х	х	х	х	х	Х	х	Х	х	х	Х	х	X	Х		Х	Х	Х	Х	x	Х	$ \mathbf{x} $	X	
ССВ	1.00	2314		х	х	х	х	х	Х	х	Х	х	х	х	х	X	х		Х	Х	Х	х	x	X	x	X	
ZZZZZZ	1.00	2319																									
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ZZZZZZ	1.00	2329								i											Ī	Ī					
ZZZZZZ	5.00	2334		Г			i																Π				
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AJAXSTPWP04F	1.00			x	х	x	х	х	х	x	x	x	x	x	х	х	х		х	х	х	x	х	х	х	Х	Γ
ccv	1.00		<u></u>	<u> </u>	<u>. </u>	x		<u> </u>		x							х		х	х	x	х	х	х	х	х	Γ
ССВ	1.00	0015		x	٠	х	x			X		•					х		х	х	x	х	x	x	х	Х	Γ
AJAXSTPWP04FL	5.00			x	-	! -	х	! -	ــــــــــــــــــــــــــــــــــــــ	x	_	х	-	_	х		х	<u> </u>	х	x	x	x	х	x	х	х	Γ
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GRANSTSFW54F		0030	<u> </u>	\dagger		\vdash	 		T			\vdash			x						T	T	T	İ	Ī		Γ
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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/8/2003 End Date: 9/9/2003

EPA													A	ma	ly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	S	Α	N	т	V	Z	С
No.				L	В	S	A	E	D	A	R	0	บ	E	В	G	И	G	I		E	G	A	L		N	N
CCB	1.00	0115		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х		Х	X	Х	Х	Х	Х	Х	Х	
ZZZZZZ	1.00	0120									<u> </u>										L						
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ZZZZZZ	1.00	0130																									
ZZZZZZ	1.00	0135																			L						
ZZZZZZ	5.00	0140		Ī																			\Box				
ZZZZZZ	1.00	0145																								oxed	
ICSA	1.00	0150		X	х	х	Х	X	Х	X	X	x	х	х	Х	Х	x		x	Х	Х	x	Х	Х	x	X	
ICSAB	1.00	0156		Х	Х	Х	Х	х	Х	Х	Х	х	Х	х	X	Х	Х		х	х	Х	x	Х	Х	х	х	
CRI	1.00	0201		x	х	х	х	Х	x	Х	Х	х	х	х	Х	Х	Х	l	х	х	Х	х	x	x	х	Х	
CRILOW	1.00	0206		x	х	х	х	Х	X	Х	Х	х	х	х	Х	Х	Х		Х	x	X	x	х	Х	х	X	
CCV	1.00	0211		Х	х	х	х	Х	X	Х	X	х	х	х	Х	х	Х		х			x	Х		Х		<u></u>
CCB	1.00	0216		Х	Х	х	х	x	x	x	X	х	х	х	Х	Х	х		Х	X	Х	X	X	X	\mathbf{x}	Х	

14

ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/8/2003 End Date: 8/8/2003

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Sample No.	D/F	Time	% R	A	S B	AS		B E		C	CR	ე ი				M G	M	H G	N	- 1		A G		T		Z
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s0.5	1.00	1358		⊢			<u> </u>	-					_	┝	 	-	-	X	Ш		L		Ш	ᆉ	\dashv	十
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\$5	1.00	1402		┡	-	_		<u> </u>				<u> </u>		<u> </u>	<u> </u>	<u> </u>	H	X				ļ		\dashv	\dashv	\dashv
s10	1.00	1404		<u> </u>		_		<u> </u>	_			L	<u> </u>	├	<u> </u>	-	├	X			_	<u> </u>	Н	\dashv	\dashv	+
ICV	1.00	1406		<u> </u>		_	<u> </u>	<u> </u>	<u> </u>				<u> </u>	<u> </u>	_		├	X				<u> </u>		\dashv	+	+
ICB	1.00	1408		ļ		_	<u> </u>	<u> </u>					L	<u> </u>	<u> </u>	<u>L</u>	 		_		<u> </u>			\dashv	-	+
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ССВ				<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>				<u> </u>	<u> </u>		_	_	\vdash	X	_		<u> </u>	L	Щ		4	4
PBW0805B	1.00	1415		<u> </u>			<u> </u>		<u> </u>	<u>L</u>		L		<u> </u>	<u> </u>	L	<u> </u>	Х	_	ļ				1	4	+
LCSW0805B	1.00	1417		<u>L</u>			<u> </u>	<u> </u>		<u> </u>		<u> </u>	<u> </u>	<u> </u>	L	Ļ	<u> </u>	Х			<u>L</u>				4	4
LCSDW0805B	1.00	1418									L	<u> </u>		<u> </u>		L	<u> </u>	Х			L	L			4	4
AJAXSTPWP04F	1.00	1420			<u> </u>						L,	L		<u> </u>		Ļ.	<u> </u>	Х			L	<u> </u>		\Box	_	4
AJAXSTSFW04	1.00	1422							:	<u> </u>					<u> </u>		L	X	<u> </u>						_	_
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AJAXPDSFW06	1.00	1425								l							<u> </u>	Х							_	\perp
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CCV	1.00	1431		İ	<u> </u>		Ī		Γ									Х								\perp
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MAGNSTSFW01F		1445	<u> </u>		\vdash		i	i		i	 	T	Ī	T	Ĺ	T	T	x		Г	Ī			П	Ī	丁
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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW003

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/8/2003 End Date: 8/8/2003

EPA												A	ına	ly	te	s									
Sample No.	D/F	Time	% R	A	S	A S	B A	l l	C D	C A	C 0			P B	ł	M N	H G			S E		 T L	٧	z N	
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September 9, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCW003

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 22, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client	Sample	Sample
	Sample ID	<u>Date</u>	<u>Matrix</u>
	Received: 07/22/03	ETR No: 94950	
535396 535397 535398 535399 535400 535401 535402 535403 535404 535405 535406 535407 535410 535411	AJAXSTPWP04 AJAXSTPWP04F AJAXSTSFW04 AJAXSTSFW04F AJAXPDSFW06 AJAXPDSFW06F AJAXADSFW07 AJAXADSFW07F AJAXSTSFW52 AJAXSTSFW52F GRANSTSFW54F MAGNSTSFW01 MAGNSTSFW01F MAGNSTSFW01F	07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03 07/17/03	Water Water Water Water Water Water Water Water Water Water Water Water Water Water
535413	MAGNSTPWP01F	07/18/03	Water
535414	MAGNSTSFW02	07/18/03	Water
535415	MAGNSTSFW02F	07/18/03	Water

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal. Please note that sample GRANSTSFW53 listed on the chain-of-custody form with a sample date and time of July 17 at 1830 was not received. A similarly identified sample

Ms. Jennifer Kindred September 9, 2003 Page 2 of 2

(GRANSTSFW53MS) was listed on the second chain-of-custody form received on July 22, 2003. Based on how quality control samples had previously been identified, the laboratory identified this sample as the parent sample to be used for quality control purposes.

The analysis for arsenic speciation was performed by STL's North Canton facility, as approved by EA Engineering. STL North Canton assigned "Lot" numbers as samples were received. Though laboratory numbers may differ, the client's sample identifications were maintained. The results for this delivery group including a case narrative prepared by the North Canton laboratory are attached to this report.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Sulfate by 375.4

Please note that the due to instrumentation problems, sulfate was analyzed by Method 375.4 versus 300.0 as agreed to by the client.

Solids by 160.x

The analyses of all samples in this delivery group submitted for solids determinations (total, suspended, and / or dissolved) were performed one to two days beyond the method specified holding time of seven days. Samples were received with two days remaining in hold time and the laboratory analyzed all samples as quickly as was possible.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page ________.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely.

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/jtw/jmm

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCW004



September 9, 2003

Ms. Jennifer Kindred **EA Engineering** 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCW004

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 22, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client Sample ID	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/22/03	ETR No: 94961	
535378	MAGNSTPWP02	07/18/03	Water
535379	MAGNSTPWP02F	07/18/03	Water
535380	MAGNSTSFW03	07/18/03	Water
535381	MAGNSTSFW03F	07/18/03	Water
535382	MAGNSTPWP03	07/18/03	Water
535383	MAGNSTPWP03F	07/18/03	Water
535384	MAGNPDSFW11	07/18/03	Water
535385	MAGNPDSFW11F	07/18/03	Water
535386	MAGNADSFW13	07/18/03	Water
535387	MAGNADSFW13F	07/18/03	Water
535388	GRANSTPWP54	07/18/03	Water
535389	GRANSTPWP54F	07/18/03	Water
535390	GRANSTPWP53	07/19/03	Water
535391	GRANSTPWP53F	07/19/03	Water
535392	GRANSTSFW53	07/19/03	Water
535392MS	GRANSTSFW53MS	07/19/03	Water
535392DP	GRANSTSFW53REP	07/19/03	Water
535393	GRANSTSFW53F	07/19/03	Water
535393MS	GRANSTSFW53FMS	07/19/03	Water
535393DP	GRANSTSFW53FREF	07/19/03	Water
535394	MAGNADSFW55	07/19/03	Water
535395	MAGNADSFW55F	07/19/03	Water

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

Ms. Jennifer Kindred September 9, 2003 Page 2 of 3

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal.

The analysis for arsenic speciation was performed by STL's North Canton facility, as approved by EA Engineering. STL North Canton assigned "Lot" numbers as samples were received. Though laboratory numbers may differ, the client's sample identifications were maintained. The results for this delivery group including a case narrative prepared by the North Canton laboratory are attached to this report.

This narrative identifies anomalies that occurred during the analyses of samples in this delivery group. If there is no description following regarding a certain methodology requested on the chain-of-custody record, then there were no exceptions to the laboratory quality control criteria noted during that analysis.

Sulfate by 375.4

Please note that the due to instrumentation problems, sulfate was analyzed by Method 375.4 versus 300.0 as agreed to by the client.

Solids by 160.x

The dissolved solids analyses of samples MAGNSTSFW03, MAGNPDSFW11, and MAGNADSFW13 were performed one day beyond the method specified holding time of seven days. Samples were received with three days remaining in hold time and the laboratory analyzed all samples as quickly as was possible.

Reproducibility between the initial and duplicate total suspended solids analysis of sample GRANSTSFW53 was poor (RPD of 80). The laboratory could not reanalyze the sample for confirmational purposes due to limited sample volume.

Cyanide by 9012

An initial analysis for cyanide was performed on July 30, 2003 but results could not be used due to quality control failures. When preparing samples for reanalysis on July 31, 2003, the analyst found limited sample volume remaining for sample GRANSTSFW53 and consulted with the project manager on how to proceed. Not remembering that a second aliquot existed for cyanide analysis, the project manager instructed the laboratory to cancel the duplicate analysis and continue with the matrix spike analysis. Once this error was discovered, the holding time for cyanide was out by more than a month. The laboratory notified the client of this error and the client concurred that a duplicate analysis should not be performed at this time.

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

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Ms. Jennifer Kindred September 9, 2003 Page 3 of 3

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely,

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/jtw/jmm

TRENT LABORATORIES, INC. Colchester, VT 05446 Tel 802 655 1203 SEVERN TRENT

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STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248	_ 9	Soo m. 0 -	٦	Charcoal Tube \$ //O - Plastic or other		L - Liquid A - Air bag tter 250 ml - Glass wide mouth	Water S - Soil Amber / Or Glass 1 Liter	W - Water A/G - Amber	Wastewater40 ml vial	er voa	¹Matrix ²Container
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Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

MAGNSTSFW03

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535380

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

,		Analytical	Analytical					
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	315	
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	1	2.0	188	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	1	5.0	256	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	0.90	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	Ū
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	137	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	137	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	5	25.0	57.3	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	8.0	
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Sample Report Summary

Client Sample No.

MAGNPDSFW11

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535384

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL.	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03	Daten	umhos/cm		0.000	899	Quai.
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	1	2.0	680	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	1	5.0	772	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	0.80	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	υ
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	226	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	226	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	50	250	391	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	8.0	
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Sample Report Summary

Client Sample No.

MAGNADSFW13

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535386

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

		Analytical	Analytical			<u> </u>		1
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	906	
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	1	2.0	680	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	1	5.0	841	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	28.7	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	υ
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	230	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	230	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	100	500	637	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	7.0	

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Sample Report Summary

Client Sample No.

GRANSTSFW53

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535392

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	108	
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	1	2.0	80.0	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	1	5.0	100.0	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	1	0.50	7.2	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	5.0	U
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	46.9	
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	1	1.0	46.9	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	1	5.0	14.8	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	7.6	
:								

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Sample Report Summary

Client Sample No.

MAGNADSFW55

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535394

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

	_	Analytical						
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	07/25/03		umhos/cm	1	0.000	180	
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	1	2.0	112	
160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	1	5.0	128	
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	2	0.77	90.5	
160.4	Volatile Suspended Solids	07/25/03		mg/L	1	5.0	7.1	
310.1	Hydroxide Alkalinity	07/29/03	BLKAL0729A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/29/03	BLKAL0729A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/29/03	BLKAL0729A	mg/L	1	1.0	111	
310.1	Total Alkalinity	07/29/03	BLKAL0729A	mg/L	1	1.0	111	
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	2	10.0	16.8	
9040B	Corrosivity by pH	07/25/03		pH Units	1	0.000	7.3	;
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Method Blank Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Conc.	Units	Qual.	DF	RL	Analytical Run Date	Analytical Batch
BLKAL0728A	310.1	Hydroxide Alkalinity	1.0	mg/L	U	1	1.0	07/28/03	BLKAL0728A
BLKAL0728A	310.1	Carbonate Alkalinity	1.0	mg/L	U	1	1.0	07/28/03	BLKAL0728A
BLKAL0728A	310.1	Bicarbonate Alkalinity	1.0	mg/L	U	1	1.0	07/28/03	BLKAL0728A
BLKAL0728A	310.1	Total Alkalinity	1.0	mg/L	U	1 .	1.0	07/28/03	BLKAL0728A
BLKAL0729A	310.1	Hydroxide Alkalinity	1.0	mg/L	υ	1	1.0	07/29/03	BLKAL0729A
BLKAL0729A	310.1	Carbonate Alkalinity	1.0	mg/L	U	1	1.0	07/29/03	BLKAL0729A
BLKAL0729A	310.1	Bicarbonate Alkalinity	1.0	mg/L	U	1	1.0	07/29/03	BLKAL0729A
BLKAL0729A	310.1	Total Alkalinity	1.0	mg/L	U	1	1.0	07/29/03	BLKAL0729A
BLKDS0726A	160.1	Total Dissolved Solids	5.0	mg/L	υ	1	5.0	07/26/03	BLKDS0726A
BLKHA0808A	130.2	Total Hardness as CaCO3	2.0	mg/L	U	1	2.0	08/08/03	BLKHA0808A
BLKSS0725A	160.2	Total Suspended Solids	0.50	mg/L	U	1	0.50	07/25/03	BLKSS0725A
BLKSU0811A	375.4	Sulfate	5.0	mg/L	U	1	5.0	08/11/03	BLKSU0811A

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Matrix Spike Sample Report Summary

Client Sample No.

GRANSTSFW53MS

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535392MS

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

	_	Analytical	Analytical		Matrix S	uit	Res	ult	Spike	%
Method	Parameter	Run Date	Batch		Conc.	Qual.		Qual.		Recovery
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	196		80.0		121.00	95.9
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	102		46.9		54.70	100.7
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	22.3		14.8		10.0	75.0
	1									

* Control Limit for Percent Recovery is 75-125%, unless otherwise specified.

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Duplicate Sample Report Summary

Client Sample No.

GRANSTSFW53REP

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535392DP

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

		Analytical	Analytical		Sam _l Resi		Dupli Sample		
Method	Parameter	Run Date	Batch	Units	Conc.	Qual.	Conc.	Qual.	RPD*
120.1	Conductivity (umhos/cm)	07/25/03		umhos/c	108		110		2
130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	80.0		80.0		0
160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	100.0		96.0		4
160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	7.2		3.1		80
160.4	Volatile Suspended Solids	07/25/03		mg/L	5.0	U	5.0	U	0
310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	1.0	U	1.0	U	0
310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	1.0	U	1.0	U	0
310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	46.9		48.2		3
310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	46.9		48.2		3
375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	14.8		14.6		1
9040B	Corrosivity by pH	07/25/03		pH Units	7.6		7.5		1
		:							
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* Control Limit for RPD is +/- 20%, unless otherwise specified.

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Laboratory Control Sample Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCS Conc.	True Value	% Recovery*
LCS DS0726A	160.1	Total Dissolved Solids	07/26/03	BLKDS0726A	mg/L	50.0	50.0	100.0
LCSAL0728A	310.1	Hydroxide Alkalinity	07/28/03	BLKAL0728A	mg/L	57.6	54.7000	105.3
LCSAL0728A	310.1	Carbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	57.6	54.7000	105.3
LCSAL0728A	310.1	Bicarbonate Alkalinity	07/28/03	BLKAL0728A	mg/L	57.6	54.7000	105.3
LCSAL0728A	310.1	Total Alkalinity	07/28/03	BLKAL0728A	mg/L	57.6	54.7000	105.3
LCSAL0729A	310.1	Hydroxide Alkalinity	07/29/03	BLKAL0729A	mg/L	58.2	54.7000	106.3
LCSAL0729A	310.1	Carbonate Alkalinity	07/29/03	BLKAL0729A	mg/L	58.2	54.7000	106.3
LCSAL0729A	310.1	Bicarbonate Alkalinity	07/29/03	BLKAL0729A	mg/L	58.2	54.7000	106.3
LCSAL0729A	310.1	Total Alkalinity	07/29/03	BLKAL0729A	mg/L	58.2	54.7000	106.3
LCSCD0725A	120.1	Conductivity (umhos/cm)	07/25/03		umhos/c	930	977.0000	95.2
LCSHA0808A	130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	124	121.0000	102.5
LCSPH0725A	9040B	Corrosivity by pH	07/25/03		pH Units	6.0	6.0000	100.0
LCSSS0725A	160.2	Total Suspended Solids	07/25/03	BLKSS0725A	mg/L	502	500	100.4
LCSSU0811A	375.4	Sulfate	08/11/03	BLKSU0811A	mg/L	9.6	10.0	96.0
	· !							
	:							

^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.

Printed on: 09/05/03 02:56 PM

Laboratory Control Sample Duplicate Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Matrix: SOIL

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCSD Conc.	True Value	% Recovery*	RPD**
LCSDCD0725A	120.1	Conductivity (umhos/cm)	07/25/03		umhos/c	958	977.0000	98.1	3
LCSDHA0808A	130.2	Total Hardness as CaCO3	08/08/03	BLKHA0808A	mg/L	124	121.0000	102.5	0
LCSDPH0725A	9040B	Corrosivity by pH	07/25/03		pH Units	6.0	6.0000	100.2	C
	÷								
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.
** Control Limit for RPD is +/- 20%, unless otherwise specified.

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Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Code: STLVT	Case No.: 23046	SAS No.:	SDG No.:GCW004
		3A3 NO	SDG NOGCWUU4
SOW No.: ILM04.	1		
I	EPA Sample No.	Lab Sample ID.	
	GRANSTPWP53	535390	
	GRANSTPWP53F	535391	
	GRANSTPWP54	535388	
	GRANSTPWP54F	535389	
	GRANSTSFW53	535392	
	GRANSTSFW53D	535392DP	
	GRANSTSFW53F	535393	
	GRANSTSFW53FD	535393DP	
(GRANSTSFW53FS	535393MS	
(GRANSTSFW53S	535392MS	
]	MAGNADSFW13	535386	
]	MAGNADSFW13F	535387	
	MAGNADSFW55	535394	
	MAGNADSFW55F	535395	
	MAGNPDSFW11	535384	<u>.</u>
]	MAGNPDSFW11F	535385	
]	MAGNSTPWP02	535378	Manufacture (Manufacture
-	MAGNSTPWP02F	535379	
-	MAGNSTPWP03	_ 535382	
-	MAGNSTPWP03F	_ 535383	
-	MAGNSTSFW03	535380	
1	MAGNSTSFW03F	535381	
			•
Were ICP intere	lement corrections applied?		Yes/No YES
Were ICP backgr	ound corrections applied?		Yes/No YES
If yes-wer	e raw data generated before		163/110
applicatio	n of background corrections?		Yes/No NO
Comments:			
Ommerics.			
-	this data package is in compl		
	technically and for completen		
	of the data contained in thi		
	Le data submitted on diskette		
manager or the f	Manager's designee, as verifi	ed by the rottowing s:	rgnature.
~··		Nama	
Signature:		Name:	
Date:		Title:	

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

_			
	GRANSTPW	P53	

Lab Name:	STL BURL	INGTON	Contr	act: 23046			
Lab Code:	STLVT	Case No.:	23046 SA	S No.:	SDG	No.: G	CW004
Matrix (so	il/water)	: WATER	····	Lab Sample II	D: <u>535</u>	390	The residence of the section of
Level (low	/med):	TOM		Date Received	d: <u>7/2</u> 2	2/2003	
% Solids:	0.0	_					
		Concentration	Units (ug/L or	mg/kg dry weig	ht): UG	/L	
		CAS No.	Analyte	Concentration	СО	М	
		57-12-5	Cyanide	10.0	ן ט	AS	
			•				
					•		
					,		
Color Be	fore:	Cl	arity Before:		Textu	e:	
Color Af	ter:	C1	arity After:		Artifa	acts:	
Comments	:						

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRA	NSTPWP53F

				GRANSIPWP55F
Lab Name:	STL BURLINGTON	Contract: 23046		
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.:	GCW004

Lab Sample ID: 535391

Date Received: 7/22/2003

% Solids: 0.0

Level (low/med):

Matrix (soil/water): WATER

LOW

r		·			
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	60.5	В	1	P
7440-36-0	Antimony	4.7	טן		P
7440-38-2	Arsenic	16.7			P
7440-39-3	Barium'	47.6	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	ען]	P
7440-70-2	Calcium	15500		1	P
7440-47-3	Chromium	1.4	טן		P
7440-48-4	Cobalt	2.0	ען		P
7440-50-8	Copper	2.4	טן	1	P
7439-89-6	Iron	23.3	B		P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	3580	B		P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.10	U		cv
7440-02-0	Nickel	2.1	שן		P
7440-09-7	Potassium	2000	В		P
7782-49-2	Selenium	1.7	Įυ		P
7440-22-4	Silver	2.2	ր		P
7440-23-5	Sodium	3420	В		P
7440-28-0	Thallium	4.1	В		P
7440-62-2	Vanadium	2.0	ע		P
7440-66-6	Zinc	5.9	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:			12. 13. 13 	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
GRANSTPWP54

Lab Name:	STL BURL	INGTON	Contra	ct: <u>23046</u>			
Lab Code:	STLVT	Case No.:	23046 SAS	No.:	SDG	No.:	GCW004
Matrix (soi	1/water)	: WATER		Lab Sample II): <u>535</u>	388	· · · · · · · · · · · · · · · · · · ·
Level (low/	med):	LOW		Date Received	1: <u>7/2</u> :	2/2003	
% Solids:	0.0	,					
•		Congontration	Unita (ua/I or	mg/kg dry weigh	h+\ . IIC	/т	
		Concentration	onics (ug/L or	mg/kg dry wergi	11c) . <u>og</u>		
		CAS No.	Analyte	Concentration	C Q	М	
		57-12-5	Cyanide	10.0	U	AS	
				·	<u>'</u>		
				•			
							,
Color Bef	ore:	C1;	arity Before:		Textu	re:	
Color Aft	er:	Cla	arity After:		Artif	acts:	
		A (A) - AP - TO STORES	•				
Comments:							

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

	·		
GRA	NSTPWP54F	•	

Lab Nam	e: STL	BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Matrix (soil/water): WATER Lab Sample ID: 535389

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

	CAS No.	Analyte	Concentration	С	Q	М
ĺ	7429-90-5	Aluminum	45.7	В		P
Ī	7440-36-0	Antimony	4.7	ע		P
j	7440-38-2	Arsenic	13.2	1		P
j	7440-39-3	Barium	45.9	В		P
Ī	7440-41-7	Beryllium	0.20	U		₽
Ī	7440-43-9	Cadmium	0.60	ע		P
j	7440-70-2	Calcium	16700	1		P
İ	7440-47-3	Chromium	1.4	שן		P
İ	7440-48-4	Cobalt	2.0	U		P
į	7440-50-8	Copper	2.4	שן		P
ĺ	7439-89-6	Iron	16.8	שן	}	P
ĺ	7439-92-1	Lead	1.3	ՄՄ	l	P
İ	7439-95-4	Magnesium	4440	В		P
İ	7439-96-5	Manganese	4.4	В		P
İ	7439-97-6	Mercury	0.12	В		cv
İ	7440-02-0	Nickel	2.1	שן		P
ĺ	7440-09-7	Potassium	1830	В		P
İ	7782-49-2	Selenium	1.7	שן	}	P
İ	7440-22-4	Silver	2.2	ען		P
İ	7440-23-5	Sodium	3540	В		P
j	7440-28-0	Thallium	2.8	Ū		P
Ì	7440-62-2	Vanadium	2.0	U		P
İ	7440-66-6	Zinc	5.4	В	1	P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

	······································	-
GRA	ISTSFW53	

Lab Name:	STL BURLING	GTON	Contract:	23046		
Lab Code:	STLVT	Case No.: 23046	SAS No.	•	SDG No.:	GCW004
Matrix (so	il/water):	WATER	Lal	o Sample ID:	535392	

Date Received: 7/22/2003

% Solids: 0.0

TOM

Level (low/med):

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	93.9	B B		 p
7440-36-0	<u> </u>	1 4.7	וט די	! !	l P
	Antimony		10	<u> </u>	!
7440-38-2	Arsenic	13.1	<u> </u>	<u> </u>	P
7440-39-3	Barium	54.8	B	١.	P
7440-41-7	Beryllium	0.20	שן	· .	P
7440-43-9	Cadmium	0.60	שן]	P
7440-70-2	Calcium	15100		}	P
7440-47-3	Chromium	1.4	U	İ	P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	2.4	טן		P
7439-89-6	Iron	113	Ī		P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	3470	В	ļ	P
7439-96-5	Manganese	18.8			P
7439-97-6	Mercury	0.11	В		CV
7440-02-0	Nickel	2.1	ען		P
7440-09-7	Potassium	1850	В		P
7782-49-2	Selenium	1.7	שן		P
7440-22-4	Silver	2.2	ען		P
7440-23-5	Sodium	3130	В		P
7440-28-0	Thallium	3.1	В		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	3.6	В		P
57-12-5	Cyanide	10.0	שן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments: —					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GRANSTSFW53F

									GRANSTSEW53E	
Lab N	ame:	STL BURLINGTO	NC		Contract:	23046				
Lab C	ode:	STLVT	Case No.:	23046	_ SAS No.:		SDG	No.:	GCW004	

Matrix (soil/water): WATER Lab Sample ID: 535393

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

			-,		
CAS No.	·· Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	79.3	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	13.1	1		P
7440-39-3	Barium	55.0	В		P.
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium	15300		}	P
7440-47-3	Chromium	1.4	ប		P
7440-48-4	Cobalt	2.0	lα		P
7440-50-8	Copper	2.4	Įυ		P
7439-89-6	Iron	16.8	ט	Ĵ	P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	3540	В		P
7439-96-5	Manganese	10.3	В		P
7439-97-6	Mercury	0.20	В		cv
7440-02-0	Nickel	2.1	lα		P
7440-09-7	Potassium	1870	В		P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	2.2	טן		P
7440-23-5	Sodium	3380	В		P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.0	ען		P
7440-66-6	Zinc	3.1	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments: —					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNADS	FW13

Lab Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Matrix (soil/water): WATER Lab Sample ID: 535386

Level (low/med): LOW ____ Date Received: 7/22/2003

% Solids: 0.0

CAS No.	Analyte [.]	Concentration	С	Q	М
7429-90-5	Aluminum	367			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	239	1	j	P
7440-39-3	Barium	26.5	В]	P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	Ū		P
7440-70-2	Calcium	134000			P
7440-47-3	Chromium	1.4	טן		P
7440-48-4	Cobalt	13.0	В	}	P
7440-50-8	Copper	5.3	В]	P
7439-89-6	Iron	9530			P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	69400		1	P
7439-96-5	Manganese	1740	T		P
7439-97-6	Mercury	0.33			cv
7440-02-0	Nickel	68.0	Ī		P
7440-09-7	Potassium	4930	В		P
7782-49-2	Selenium	1.7	שן	l	P
7440-22-4	Silver	2.2	Įΰ		P
7440-23-5	Sodium	6420			P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	35.3			P
57-12-5	Cyanide	10.0	טן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:	,			

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
MAGNADSFW13F

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW004
Matrix (so	il/water): WATER	Lab Sample ID:	535387
Level (low	/med): LOW	Date Received:	7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	33.5	В		P
7440-36-0	Antimony	4.7	טן		P
7440-38-2	Arsenic	61.6			P
7440-39-3	Barium	21.1	В		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	מ		P
7440-70-2	Calcium	132000			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	11.1	В		P
7440-50-8	Copper	2.4	טן		P
7439-89-6	Iron	955	1		P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	68700	1	l	P
7439-96-5	Manganese	1690			P
7439-97-6	Mercury	0.10	ט		CA
7440-02-0	Nickel	64.7	1	1	P
7440-09-7	Potassium	4800	B		P
7782-49-2	Selenium	1.7	טן		P
7440-22-4	Silver	2.2	טן		P
7440-23-5	Sodium	5780			P
7440-28-0	Thallium	4.3	B		P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	26.1		1	P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: —				
				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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 								 	_
		M	AGN	AD.	SFW	55			

Lab Name:	STL BURLING	STON		ontract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.	:	SDG No.:	GCW004
Matrix (so	il/water):	WATER		La	b Sample ID:	535394	
Level (low	/med): <u>LO</u>	<u>w</u>		Da	te Received:	7/22/2003	· · · · · · ·

% Solids: 0.0

CAS No.	Analyte	Concentration ·	С	Ω	М
7429-90-5	Aluminum	1180			P
7440-36-0	Antimony	4.7	Įυ		P
7440-38-2	Arsenic	4.8	lα	l	P
7440-39-3	Barium	52.3	В	1	P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U	[P
7440-70-2	Calcium	21500	1		P
7440-47-3	Chromium	1.4	טן		P
7440-48-4	Cobalt	2.0	U]	P
7440-50-8	Copper	2.4	В	1	P
7439-89-6	Iron	636		1	P
7439-92-1	Lead	1.3	טן	ĺ	P
7439-95-4	Magnesium	10500			P
7439-96-5	Manganese	48.9			P
7439-97-6	Mercury	0.13	В		cv
7440-02-0	Nickel	2.1	Įυ	1	P
7440-09-7	Potassium	1360	В		P
7782-49-2	Selenium	1.7	Ιū	<u> </u>	P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	6340	Ī		P
7440-28-0	Thallium	3.7	В		P
7440-62-2	Vanadium	2.6	В	1	P
7440-66-6	Zinc	5.4	В	}	P
57-12-5	Cyanide	10.0	U		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: _	III. III. III. III. III. III. III. III	AND AND AND AND AND AND AND AND AND AND		
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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MA	GNADSFW5) D.E.	

Lab Name: <u>S</u>	TL BURLINGTON	Contract: 23046	
Lab Code: S	TLVT Case No.: 23046	SAS No.:	SDG No.: GCW004
Matrix (soil	/water): WATER	Lab Sample ID:	535395
Level (low/m	ed): LOW	Date Received:	7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q٠٠	М
7429-90-5	Aluminum	57.2	В		P
7440-36-0	Antimony	4.7	שׁ		P
7440-38-2	Arsenic	4.8	ען		P
7440-39-3	Barium	42.8	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.60	Ιū		P
7440-70-2	Calcium	21500	1		P
7440-47-3	Chromium	1.4	lα		P
7440-48-4	Cobalt	2.0	Įΰ		P
7440-50-8	Copper	4.6	В		P
7439-89-6	Iron	16.8	ן ט		P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	10600			Р
7439-96-5	Manganese	36.1			Р
7439-97-6	Mercury	0.10	ln		CV
7440-02-0	Nickel	2.1	ր		P
7440-09-7	Potassium	1480	В		P
7782-49-2	Selenium	1.7	שן		P
7440-22-4	Silver	2.2	U		P
7440-23-5	Sodium	6360			P
7440-28-0	Thallium	2.8	ՄՄ		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	4.6	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:			A STATE OF THE STA	

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNPI	SFW11	

Lab Name:	STL BURLING	GTON	Contract: 23046	
Lab Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCW004
Matrix (so	il/water):	WATER	Lab Sample ID:	535384

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	33.4	В		P
7440-36-0	Antimony	4.7	ע		P
7440-38-2	Arsenic	9.7	В		P
7440-39-3	Barium	16.2	В	}	P
7440-41-7	Beryllium	0.20	ט	1	P
7440-43-9	Cadmium	0.60	טן	1	P
7440-70-2	Calcium	133000	l		P
7440-47-3	Chromium	1.4	U		P
7440-48-4	Cobalt	5.5	B]	P
7440-50-8	Copper	2.4	טן		P
7439-89-6	Iron	64.3	В		P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	69100		ļ	P
7439-96-5	Manganese	905]		P
7439-97-6	Mercury	0.14	B		cv
7440-02-0	Nickel	39.4	В		P
7440-09-7	Potassium	4680	В		P
7782-49-2	Selenium	1.7	ט		P
7440-22-4	Silver	2.2	U		P
7440-23-5	Sodium	5580			P
7440-28-0	Thallium	3.1	В		P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	11.5	В		P
57-12-5	Cyanide	10.0	טן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNPDSFW11F	

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Matrix (soil/water): WATER Lab Sample ID: 535385

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	29.4	В	1	P
7440-36-0	Antimony	4.7	Įΰ		P
7440-38-2	Arsenic	7.7	В	Ī	P
7440-39-3	Barium	15.8	В]	P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium	134000			P
7440-47-3	Chromium	1.4	U		P
7440-48-4	Cobalt	5.2	В]	P
7440-50-8	Copper	2.4	ען		P
7439-89-6	Iron	484	1		P
7439-92-1	Lead	1.3	ען		P
7439-95-4	Magnesium	69800			P
7439-96-5	Manganese	880			P
7439-97-6	Mercury	0.16	В		CV
7440-02-0	Nickel	43.0			P
7440-09-7	Potassium	4750	В		P
7782-49-2	Selenium	1.7	ע		P
7440-22-4	Silver	2.2	U		P
7440-23-5	Sodium	5870	1		P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.0	[ט		P
7440-66-6	Zinc	11.9	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: _		W		
_		-		

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

							TAGNS1EWEUZ
Lab Name:	STL BURL	INGTON	Contr	act: 23046			
Lab Code:	STLVT	Case No.	: <u>23046</u> SA	S No.:	SDG	No.: 9	CW004
Matrix (so	il/water)	: WATER		Lab Sample II	D: <u>535</u>	378	
Level (low	/med):	LOW		Date Received	d: 7/2	2/2003	
% Solids:	0.0						
		-					
		Concentration	n Units (ug/L o	mg/kg dry weig	ht): UG	<u>/L</u>	
		CAS No.	Analyte	Concentration	C Q	М	
		57-12-5	Cyanide	10.0	ן ט	AS	
					·		
	_		_				
Color Bef	fore:	C	larity Before:		Textur	:e: 	
Color Aft	er:	C	larity After:		Artifa	icts:	
		-					
Comments:							

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPW	P02F	

Lab Name:	STL BURLING	STON	Contract:	23046		
Lab Code:	STLVT	Case No.: 23046	SAS No.		SDG No.:	GCW004
Matrix (so	il/water):	WATER	Lab	Sample ID:	535379	

Date Received: 7/22/2003

% Solids: 0.0

Level (low/med):

CAS No.	Analyte	Concentration	C	Ω	М
7429-90-5	Aluminum	23.6	U		P
7440-36-0	Antimony	4.7	טן		P
7440-38-2	Arsenic	26.2	-		P
7440-39-3	Barium	76.0	B	1	P
7440-41-7	Beryllium	0.20	טן	Ī	P
7440-43-9	Cadmium	0.60	U	1	P
7440-70-2	Calcium	41800	I		P
7440-47-3	Chromium	1.4	Įυ		P
7440-48-4	Cobalt	2.0	שן	1	P
7440-50-8	Copper	2.4	טן		P
7439-89-6	Iron	65.2	B		P
7439-92-1	Lead	1.3	ען		P
7439-95-4	Magnesium	19300			P
7439-96-5	Manganese	8.6	В		P
7439-97-6	Mercury	0.19	В		CV
7440-02-0	Nickel	2.1	ען		P
7440-09-7	Potassium	2380	В		P
7782-49-2	Selenium	1.7	ע		P
7440-22-4	Silver	2.2	ַט		P
7440-23-5	Sodium	6400			P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	9.7	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:	·
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments: _					

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPWP03

							MAGNSTPWP03
Lab Name:	STL BURL	INGTON	Contra	act: 23046		L	
Lab Code:	STLVT	. Case No.	: 23046 SAS	S No.:	_ SDG	No.:	GCW004
Matrix (so	oil/water)	: WATER		Lab Sample ID	: <u>535</u>	382	-
Level (low	/med):	LOW		Date Received	: 7/2	2/2003	
% Solids:	0.0	_					
		Concentration	n Units (ug/L or	mg/kg dry weigh	t): UG	/L	_
		CAS No.	Analyte	Concentration	C Q	М	
		57-12-5	Cyanide	10.0	U	AS	<u> </u>
•							
•							
		,					
Color Be	efore:	(Clarity Before:	National Contract of the Contr	Textu	re:	
Color Af	iter:		Clarity After:		Artif	acts:	
Comments	: :						

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTPWP03F	

Lab Name:	STL BURLING	GTON	Con	tract: 2	23046		
Lab Code:	STLVT	Case No.: 2	23046	SAS No.:	<u> </u>	SDG No.:	GCW004
Matrix (so	il/wator):	WATED		T.ah	Sample ID:	535383	

Date Received: 7/22/2003

% Solids: 0.0

Level (low/med): LOW

636.37	Analyte	Concentration	Гс	Q	м
CAS No.	Miaryce	Concentracion	`	¥	
7429-90-5	Aluminum	23.6	Ū		P
7440-36-0	Antimony	4.7	U		Р
7440-38-2	Arsenic	27.3			P
7440-39-3	Barium	74.2	В		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.60	Įυ		P
7440-70-2	Calcium	41700			P
7440-47-3	Chromium	1.4	ប		P
7440-48-4	Cobalt	2.0	טן		P
7440-50-8	Copper	2.4	ր		P
7439-89-6	Iron	86.9	B		P
7439-92-1	Lead	1.3	ĮŪ		P
7439-95-4	Magnesium	19200	<u> </u>	<u> </u>	P
7439-96-5	Manganese	3.7	В		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	2.1	lα		P
7440-09-7	Potassium	2470	В		P
7782-49-2	Selenium	1.7	Įυ		P
7440-22-4	Silver	2.2	U	İ	P
7440-23-5	Sodium	6320		<u> </u>	P
7440-28-0	Thallium	2.8	lα		P
7440-62-2	Vanadium	2.0	שן	l	P
7440-66-6	Zinc	8.5	В		P

Color	Before:	colorless	Clarity Before:	clear	Texture:
Color	After:	colorless	Clarity After:	clear	Artifacts:
Commer	nts:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTSFW03	

				MAGNSISEWUS
Lab Name:	STL BURLINGTON	Contract: 23046		
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.:	GCW004

Lab Sample ID: 535380

Level (low/med): LOW Date Received: 7/22/2003

% Solids: 0.0

Matrix (soil/water): WATER

CAS No.	Analyte	Concentration	С	0	М
0.15 1.0.			-	~	
7429-90-5	Aluminum	40.5	В		P
7440-36-0	Antimony	4.7	שן	1	P
7440-38-2	Arsenic	29.6	1		P
7440-39-3	Barium	73.3	В	1	P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium	42200	1		P
7440-47-3	Chromium	1.4	Įυ		P
7440-48-4	Cobalt	2.0	ע		P
7440-50-8	Copper	2.4	טן	ļ	P
7439-89-6	Iron	266		1	P
7439-92-1	Lead	1.3	ען]	P
7439-95-4	Magnesium	19400			P
7439-96-5	Manganese	7.4	В		P
7439-97-6	Mercury	0.18	В	l	CV
7440-02-0	Nickel	2.1	ען		P
7440-09-7	Potassium	2410	В		P
7782-49-2	Selenium	1.7	ען		P
7440-22-4	Silver	2.2	טן]	P
7440-23-5	Sodium	6200			P
7440-28-0	Thallium	2.8	טן		P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	4.0	В		P
57-12-5	Cyanide	10.0	U		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:			· · · · · · · · · · · · · · · · · · ·	
<u>-</u>				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MAGNSTS	SFW03F	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW004
Matrix (so	il/water): WATER	Lab Sample ID:	535381
Level (low	/med): LOW	Date Received:	7/22/2003

% Solids: 0.0

	1	1			_
CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	33.4	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	28.2		1	P
7440-39-3	Barium	71.7	В	1	P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	41900			P
7440-47-3	Chromium	1.4	lα		P
7440-48-4	Cobalt	2.0	ļυ		P
7440-50-8	Copper	2.4	U		P
7439-89-6	Iron	112			P
7439-92-1	Lead	1.3	lα		P
7439-95-4	Magnesium	19300	Ī		P
7439-96-5	Manganese	4.7	В	[P
7439-97-6	Mercury	0.10	טן		cv
7440-02-0	Nickel	2.1	טן		P
7440-09-7	Potassium	2400	В	ĺ	P
7782-49-2	Selenium	1.7	טן	l	P
7440-22-4	Silver	2.2	טן		P
7440-23-5	Sodium	6100]		₽
7440-28-0	Thallium	3.1	В	1	P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	3.3	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
-					

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLINGT	ON		Cc	ntract:	23046		•
Lab	Code:	STLVT	Case N	No.:	23046	SAS No	.:	SDG No.:	GCW004
Ini	tial Ca	libration Sou	rce: Ir	norgan	nic Venture	s/Fishe:	r		

Concentration Units: ug/L

Continuing Calibration Source: SPEX/Fisher

·	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	26000.0	26420.00	101.6	30200.0	30410.00	100.7	30340.00	100.5	P
Antimony	250.0	261.90	104.8	300.0	315.60	105.2		105.5	
Arsenic	250.0	255.90	102.4	100.0	102.00	102.0		102.9	
Barium	500.0	509.40	101.9	200.0	203.90	102.0		102.5	•
Beryllium	500.0	519.40	103.9	100.0	101.10			101.1	-
Cadmium	500.0	505.30	101.1	100.0	100.20		99.74	 	
Calcium	25000.0	25630.00	102.5	30200.0	30380.00	100.6		<u> </u>	
Chromium	500.0	513.00	102.6	200.0	205.40	***************************************		103.0	•
Cobalt	500.0	506.80	101.4	200.0	203.40			102.5	_
Copper	500.0	517.40	103.5	200.0	206.20			103.8	-
Lead	1000.0	1018.00	101.8	400.0	399.90			100.8	_
Magnesium	25000.0	25460.00	101.8	30200.0	30390.00	100.6	30510.00		-
Manganese	500.0	509.60	101.9	200.0	202.90			101.6	
Mercury	3.0	3.09	103.0	5.0	4.98	99.6	4.87		•
Nickel	500.0	509.80	102.0	200.0	200.10	100.0	202.60	101.3	•
Potassium	25000.0	26150.00	104.6	30200.0	31870.00		32090.00		
Silver	500.0	505.80	101.2	100.0	103.60			104.2	
Sodium	25000.0	25080.00	100.3	30200.0	30150.00	99.8	30280.00		
Vanadium	500.0	509.50	101.9	200.0		101.2	203.80		
Zinc	500.0	512.80	102.6	200.0	205.70		206.50		
Cyanide	120.0	118.54	98.8	150.0	146.46	97.6	149.40		

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name:	STL BURLINGTON	Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial C	Calibratio	on	Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	м
Aluminum	l l			30200.0	30490.00	101.0	30480.00	100.9	P
Antimony			L	300.0	325.70	108.6	323.60	107.9	P
Arsenic				100.0	106.90	106.9	106.70	106.7	P
Barium		•		200.0	209.00	104.5	207.60	103.8	Р
Beryllium				100.0	101.60	101.6	101.60	101.6	P
Cadmium				100.0	99.81	99.8	99.95	100.0	P
Calcium				30200.0	30140.00	99.8	30430.00	100.8	P
Chromium				200.0	208.40	104.2	209.00	104.5	P
Cobalt				200.0	208.10	104.0	210.30	105.2	Р
Copper				200.0	212.20	106.1	209.80	104.9	P
Lead				400.0	407.10	101.8	410.20	102.6	Р
Magnesium				30200.0	30700.00	101.7	30850.00	102.2	P
Manganese				200.0	205.10	102.6	205.30	102.6	Р
Mercury			ll	5.0	4.61	92.2	4.73	94.6	CV
Nickel				200.0	203.50	101.8	205.20	102.6	Р
Potassium				30200.0	32310.00	107.0	32330.00	107.1	P
Silver				100.0	105.10	105.1	104.70	104.7	P
Sodium				30200.0	30980.00	102.6	30730.00	101.8	Р
Vanadium				200.0	205.90	103.0	206.40	103.2	Р
Zinc				200.0	210.10	105.0	209.50	104.8	P
Cyanide				150.0	149.12	99.4			AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	STL BURLINGTON		_Contract: 23046	
Lab Code:	STLVT Case No.:	23046	SAS No.:	SDG No.: GCW004
Initial Ca	alibration Source: Inorga	anic Vent	ures/Fisher	
Continuin	g Calibration Source: SPE	EX/Fisher		
		Concent	tration Units: ug/L	

	Initial	Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Mercury			5.0	4.94	98.8	4.8	96.0	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLINGTO	N	!	Contract: 23046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.:	SDG No.:	GCW004

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

	Initial	Calibration	Continuing Calibration				
Analyte	True	Found %R(1)	True	Found %R(1) Found %R(1)	м	
Iron	25500.0	26250.00 102.9	30200.0	31150.00 103.	1 31010.00 102.7	Р	
Selenium	250.0	244.90 98.0	100.0	101.00 101.0	102.80 102.8	P	
Thallium	250.0	238.80 95.5	100.0	101.40 101.	100.50 100.5	P	

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab	Name: _	STL BURLINGTO	N		C	ontract: <u>230</u>	046	
Lab	Code:	STLVT	Case	No.:	23046	SAS No.:	SDG No.:	GCW004
Ini	tial Ca	libration Sou	rce:	Inorga	nic Venture	es/Fisher		

Continuing Calibration Source: SPEX/Fisher

Concentration Units: ug/L

:		Calibration	Continuing Calibration					
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м
Iron			30200.0	30430.00	100.8	30760.0	0 101.9	P
Selenium			100.0	101.40	101.4	103.1	0 103.1	P
Thallium	1		100.0	98.09	98.1	105.8	0 105.8	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046
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AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

					CRDL Stand	ard :	for ICP	
				Init	ial		Fina	1
Analyte	True	·· Found	%R	True	Found	%R	Found	%R
Aluminum				400.0	515.30 12	28.8		
Antimony				120.0	126.60 10	05.5		
Arsenic				20.0	21.98 10	09.9	22.00	110.0
Barium				400.0	403.60 10	00.9	409.20	102.3
Beryllium				10.0	10.25 10	02.5	9.89	98.9
Cadmium				10.0	10.11 10	01.1	10.03	100.3
Calcium				10000.0	10550.00 10	05.5	10530.00	105.3
Chromium				20.0	21.69 10	08.4	23.12	115.6
Cobalt				100.0	99.11	99.1	102.50	102.5
Copper				50.0	50.35 10	00.7	50.86	101.7
Lead				6.0	6.64 1	10.7	6.28	104.7
Magnesium				10000.0	10260.00 10	02.6	10390.00	103.9
Manganese				30.0	30.33 10	01.1	30.53	101.8
Mercury	0.2	0.30	150.0]			
Nickel				80.0	80.58 1	00.7	81.80	102.2
Potassium				10000.0	11640.00 1	16.4	11800.00	118.0
Silver				20.0	19.80	99.0	20.41	102.0
Sodium				10000.0	9906.00	99.1	10200.00	102.0
Vanadium				100.0	98.91	98.9	100.60	100.6
Zinc				40.0	41.60 10	04.0	42.62	106.6

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

					Init	CRDL Stan	dard f	or ICP Fina	1
Analyte	True	Found.	%R		True	Found	%R	Found	%R
Iron				T	200.0	329.10	164.6	379.50	189.8
Selenium					10.0	9.21	92.1	8.74	87.4
Thallium					20.0	19.06	95.3	22.25	111.2

Control Limits: no limits have been established by EPA at this time

3 **BLANKS**

Lab Name: STL BURLINGTON

_____ Contract: 23046

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank (ug/L)	С	1	C	ontinuing Ca Blank (u			С	Preparation Blank	С	м
Aluminum	23.6	U	23.6	υl	23.6		38.3	В	23.600	U	P
Antimony	4.7	U		<u>ט</u>	4.7	U	4.7	U	4.700	U	P
Arsenic	4.8	U	4.8	י די	4.8	ט	4.8	Ū	4.800	U	P
Barium	5.9	U	5.9	<u>י</u>	5.9	ט	5.9	ט	5.900	U	P
Beryllium	0.2	U	0.2	ט	0.2	ט	-0.3	В	0.200	U	P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.600	U	P
Calcium	182.1	U	182.1	U	182.1	U	182.1	Ū	182.100	U	P
Chromium	-1.6	В	-2.0	В	-1.4	В	1.4	Ū	1.400	U	P
Cobalt	2.0	U	2.0	ט	2.0	U	2.0	บ	2.000	υ	P
Copper	2.4	U	2.4	ט	2.4	U	2.4	Ū	2.400	U	P
Iron									38.690	В	P
Lead	1.3	U	1.3	U	1.3	U	1.3	บ	-1.315	В	P
Magnesium	178.3	U	178.3	υl	178.3	U	178.3	ַ ט	178.300	บ	P
Manganese	0.7	U	0.7	U	0.7	Ū	0.7	ַ ט	0.700	U	P
Mercury	0.1	В	0.1	υ	0.1	Ū	0.1	U	0.140	В	CV
Nickel	-6.2	В	-5.2	В	-5.7	В	-4.9	В	-4.287	В	P
Potassium	393.0	U	393.0	ַ	393.0	U	393.0	ם	393.000	U	P
Selenium									1.700	U	P
Silver	2.2	U	2.2	υl	2.2	U	2.2	Ū	2.200	U	P
Sodium	472.7	U	472.7	ן ט	472.7	ט	472.7	Ū	472.700	U	P
Thallium									2.969	В	P
Vanadium	2.0	U	2.0	ע	2.0	ַ	2.0	ט	2.000	U	P
Zinc	1.0	U	1.0	U	1.0	U	1.0	U	2.758	В	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	ט	10.000	U	AS

3

BLANKS

Lab Name: STL BURLINGTON _____ Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCW004</u>

Preparation Blank Matrix (soil/water): WATER

Analuta		Continuing Calibration Blank (ug/L)								Preparation Blank			
Analyte	(ug/L)	С	1	С	2	С		3		С		С	M
Aluminum			37.2	В			1						P
Antimony			4.7	U		İ	Ì		T				P
Arsenic			4.8	U	***************************************	İ			T			**	P
Barium			5.9			i	l		Ť				P
Beryllium			-0.2			I	<u> </u>		Ť				P
Cadmium			0.6			i			Ť				P
Calcium		İ	182.1			 	<u> </u>		Ť				P
Chromium		i i	-1.7			<u> </u>	<u> </u>		Ť		1		P
Cobalt		Ti	2.0			İ	<u> </u>		寸				P
Copper			2.4				<u> </u>		Ť				P
Lead		 	1.3			<u> </u>	<u>. </u>		Ť				P
Magnesium		11	178.3						Ť				l P
Manganese		1-i	0.7						Ť				P
Mercury		1 i	0.2		0.1	U		0.1	ιĖ	в			CV
Nickel	İ	1 1	-5.3				<u> </u>		卞				P
Potassium		i	393.0			 			亡		<u> </u>		P
Silver	İ	1 🕇	2.2			Ш			十				P
Sodium	İ		472.7	_	1.11				$\dot{\top}$	 			P
Vanadium	Ì	+ †	2.0		···			:	十		<u> </u>		P
Zinc	Ì	 	1.0		-				十				P

3 BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	tinuing C Blank (u		cation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	C	М
Iron	16.8	U	16.8	ט	16.8	0	16.8	U	İ	P
Selenium	1.7	υ	-2.3	В	1.7	[ט	1.7	U		P
Thallium	2.8	ט	2.8	יט	2.8	ט	2.8	U		P

3 BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCW004

Preparation Blank Matrix (soil/water): WATER

		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С	C	М
Iron			16.	8 U		11			İ	P
Selenium			1.	7 0		1 1				P
Thallium	1		2.	8 U					İ	P

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCW004</u>

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

Concentration Units: ug/L

÷.									
	Tr	ue	Init	ial Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.A	B %R	Sol.A	Sol.AB	%R	
Aluminum	500000	482740	500100	501500.0	103.9	497800	499700.0	103.5	
Antimony	0	596	0	647.4	108.6	0	666.2	111.8	
Arsenic	0	102	10	113.2	111.0	8	110.8	108.6	
Barium	0	503	2	523.0	104.0	2	529.7	105.3	
Beryllium	0	482	0	502.0	104.1	-1	506.6	105.1	
Cadmium	0	938	3	973.0	103.7	2	968.8	103.3	
Calcium	500000	477840	497700	502700.0	105.2	493300	501900.0	105.0	
Chromium	0	483	2	500.3	103.6	2	507.5	105.1	
Cobalt	0	457	-2	480.5	105.1	-2	496.1	108.6	
Copper	0	526	3	541.0	102.9	2	549.5	104.5	
Lead	0	49	2	49.2	100.4	1	51.3	104.7	
Magnesium	500000	521880	547200	552400.0	105.8	552300	561900.0	107.7	
Manganese	0	474	1	493.7	104.2	1	498.4	105.1	
Nickel	0	952	-4	1005.0	105.6	-4	1029.0	108.1	
Potassium	0	0	-10	64.4		-115	0.0		
Silver	0	213	-1	219.2	102.9	0	219.7	103.1	
Sodium	0	0	-103	-371.9		-125	-56.2		
Vanadium	0	478	-1	488.0	102.1	0	494.7	103.5	
Zinc	0	998	7	1042.0	104.4	7	1064.0	106.6	

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

ICP ID Number: TJA ICAP 6 ICS Source: Inorganic Ventures

Concentration Units: ug/L

								
	True		Init	ial Found	Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AE	3 %R	Sol.A	Sol.AB	 %R
Iron	200000	172540	201500	201200.0	116.6	204100	199300.0	115.5
Selenium	0	48	-2	50.0	104.2	-3	46.9	
Thallium	0	95	4	98.7	103.9	0	105.8	111.4

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

GRANSTSFW53S

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

	Control	Spiked Sample		Sample		Spike			
Analyte	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	%R	Q	M
Aluminum	75 - 125	2214.0000		93.8800	В	2000.00	106.0		P
Antimony	75 - 125	556.9000		4.7000	U	500.00	111.4		P
Arsenic	75 - 125	55.7400		13.1400	<u> </u>	40.00	106.5		P
Barium	75 - 125	2117.0000		54.7500	В	2000.00	103.1		P
Beryllium	75 - 125	51.6100		0.2000	ט	50.00	103.2		P
Cadmium	75 - 125	50.8700		0.6000	U	50.00	101.7		P
Chromium	75 - 125	208.5000		1.4000	U	200.00	104.2		P
Cobalt	75 - 125	521.2000		2.0000	ט	500.00	104.2		P
Copper	75 - 125	269.3000		2.4000	[ט	250.00	107.7		P
Iron	75 - 125	1252.0000		112.8000		1000.00	113.9		P
Lead	75 - 125	18.6400		1.3000	ש	20.00	93.2		P
Manganese	75 - 125	541.4000		18.8000		500.00	104.5		P
Mercury	75 - 125	0.9280		0.1120	В	1.00	81.6		CV
Nickel	75 - 125	521.2000		2.1000	U	500.00	104.2		P
Selenium	75 - 125	10.6100		1.7000	U	10.00	106.1		P
Silver	75 - 125	52.0700		2.2000	U	50.00	104.1		P
Thallium	75 - 125	53.5800		3.0880	В	50.00	101.0		P
Vanadium	75 - 125	525.5000		2.0000	U	500.00	105.1		P
Zinc	75 - 125	543.3000		3.5690	В	500.00	107.9		P
Cyanide	75 - 125	104.0662		10.0000	υ	100.00	104.1		AS

Comments:			
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			<u></u>

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

Lab	Name:	STL	BURLINGTON		Contract:	23046
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Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

	T								
Analyte	Control	Spiked Sample	С	Sample	~	Spike			
	Limit %R	Result (SSR)		Result (SR)	С	Added (SA)	%R	ĮΩ	М
Aluminum	75 - 125	2127.0000		79.2600	В	2000.00	102.4		P
Antimony	75 - 125	561.2000		4.7000	U	500.00	112.2		P
Arsenic	75 - 125	54.6000		13.0600		40.00	103.8		P
Barium	75 - 125	2108.0000		54.9500	В	2000.00	102.7		₽
Beryllium	75 - 125	51.8500		0.2000	υ	50.00	103.7		P
Cadmium	75 - 125	51.2000		0.6000	ַ	50.00	102.4		P
Chromium	75 - 125	210.9000	1	1.4000	U	200.00	105.4		₽
Cobalt	75 - 125	529.0000		2.0000	U	500.00	105.8		P
Copper	75 - 125	267.2000		2.4000	ט	250.00	106.9		P
Iron	75 - 125	1131.0000		16.8000	U	1000.00	113.1		P
Lead	75 - 125	19.7100		1.3000	Ū	20.00	98.6		P
Manganese	75 - 125	535.0000	$\overline{}$	10.3100	В	500.00	104.9		P
Mercury	75 - 125	1.0200		0.1980	В	1.00	82.2		CV
Nickel	75 - 125	526.9000	Ī	2.1000	U	500.00	105.4		P
Selenium	75 - 125	8.4000		1.7000	U	10.00	84.0		P
Silver	75 - 125	53.0400		2.2000	U	50.00	106.1		P
Thallium	75 - 125	55.6100		2.8000	U	50.00	111.2	•	P
Vanadium	75 - 125	528.2000		2.0000	บ	500.00	105.6		P
Zinc	75 - 125	543.4000	I	3.0900	В	500.00	108.1		P

Comments:	

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

GRANSTSFW53A	

Lab Name: STL BURL	INGTON	Cont	ract: <u>23046</u>			
Lab Code: STLVT	Case No.: 23046	SAS		SDG No.:	GCW004	
Matrix (soil/water)	: WATER		Level (low	/med): LOW		

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added(SA)	%R	Q	м
Aluminum		2278.00		93.88	В	2000.0	109.2		P
Antimony		573.00		4.70	บ	500.0	114.6		P
Arsenic		54.03		13.14		40.0	102.2		P
Barium		2165.00		54.75	В	2000.0	105.5		P
Beryllium		53.31		0.20	ט	50.0	106.6		P
Cadmium		52.61		0.60	ט	50.0	105.2		₽
Chromium		216.10		1.40	ט	200.0	108.0		₽
Cobalt		538.60		2.00	ט	500.0	107.7		P
Copper		276.10		2.40	บ	250.0	110.4		P
Iron		1191.00		112.80		1000.0	107.8		P
Lead		19.58		1.30	υ	20.0	97.9		P
Manganese		557.40		18.80		500.0	107.7		P
Nickel		540.40		2.10	υ	500.0	108.1		P
Selenium		8.92		1.70	U	10.0	89.2		P
Silver		55.71		2.20	U	50.0	111.4		P
Thallium		54.03		3.09	В	50.0	101.9		P
Vanadium		541.90		2.00	Ū	500.0	108.4		P
Zinc		559.50		3.57	В	500.0	111.2		P

Comments:				

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

GRANSTSFW53FA
GRANSTSFW53FA

Lab Name: _	STL BURLING	GTON	Contra	act: <u>23046</u>		
Lab Code:	STLVT	Case No.: 23046	SAS		SDG No.:	GCW004
Matrix (soi	il/water):	WATER		Level (low/	med): LOW_	

Concentration Units: ug/L

				TON ONICS. UG/L					
Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample	С	Spike	%R	0	М
	LIMIT &K		·	Result (SR)		Added (SA)			
Aluminum		2311.00		79.26	В	2000.0	111.6		P
Antimony		588.90		4.70	U	500.0	117.8		P
Arsenic	1	52.79		13.06		40.0	99.3		P
Barium		2239.00		54.95	В	2000.0	109.2		P
Beryllium		54.66		0.20	บ	50.0	109.3		P
Cadmium		53.89		0.60	บ	50.0	107.8		P
Chromium		222.40		1.40	ט	200.0	111.2		₽
Cobalt		554.90		2.00	U	500.0	111.0		₽
Copper		285.40		2.40	U	250.0	114.2		P
Iron		1140.00		16.80	ַט	1000.0	114.0		P
Lead		20.85		1.30	ט	20.0	104.2		₽
Manganese		564.00		10.31	В	500.0	110.7		P
Nickel		553.10		2.10	ט	500.0	110.6		₽
Selenium		8.90		1.70	U	10.0	89.0		P
Silver		57.05		2.20	υ	50.0	114.1		₽
Thallium		56.00		2.80	U	50.0	112.0		P
Vanadium		558.90		2.00	ט	500.0	111.8		P
Zinc		576.10		3.09	В	500.0	114.6		P

Comments:			

6

DUPLICATES

SAMPLE NO.

GRANSTSFW53	D	

Lab Name:	STL BURLINGTON	Contract: 23046
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Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: <u>SDG No.: GCW004</u>

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

	Control						T	
Analyte	Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М
Aluminum		93.8800	В	124.1000	В	27.7		P
Antimony		4.7000	Ū	4.7000	U			P
Arsenic	10.0	13.1400		13.0400		0.8		P
Barium		54.7500	В	56.8200	В	3.7		P
Beryllium		0.2000	บ	0.2000	U			P
Cadmium		0.6000	Ū	0.6000	υ			P
Calcium	5000.0	15090.0000		15430.0000		2.2		P
Chromium		1.4000	υ	1.4000	U			P
Cobalt		2.0000	υ	2.0000	U			P
Copper		2.4000	บ	2.4000	υ			P
Iron	100.0	112.8000		125.7000		10.8		P
Lead		1.3000	U	1.3000	U			P
Magnesium		3472.0000	В	3565.0000	В	2.6		P
Manganese	15.0	18.8000		19.4700		3.5		P
Mercury		0.1120	В	0.1350	В	18.6		CV
Nickel		2.1000	U	2.1000	υ			P
Potassium		1851.0000	В	1909.0000	В	3.1		P
Selenium		1.7000	υ	1.7000	บ			P
Silver		2.2000	ט	2.2000	บ			P
Sodium		3130.0000	В	3381.0000	В	7.7		P
Thallium		3.0880	В	2.8000	Ū	200.0		P
Vanadium		2.0000	ט	2.0000	ט			P
Zinc		3.5690	В	3.5530	В	0.4		P

6

DUPLICATES

SAMPLE NO.

GRANSTSFW53FD	

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М
Aluminum		79.2600	В	51.9700	В	41.6		P
Antimony		4.7000	υ	4.7000	ט			P
Arsenic	10.0	13.0600		11.8800		9.5		P
Barium		54.9500	В	54.6200	В	0.6		P
Beryllium		0.2000	Ū	0.2000	U			P
Cadmium		0.6000	Ū	0.6000	ט			P
Calcium	5000.0	15340.0000		15380.0000		0.3		P
Chromium		1.4000	Ū	1.4000	U			P
Cobalt		2.0000	Ū	2.0000	U			P
Copper		2.4000	ט	2.4000	ט			P
Iron		16.8000	Ū	29.4700	В	200.0		P
Lead		1.3000	Ū	1.3000	υ			P
Magnesium		3535.0000	В	3553.0000	В	0.5		P
Manganese		10.3100	В	10.1800	В	1.3		P
Mercury		0.1980	В	0.1300	В	41.5		CV
Nickel		2.1000	U	2.1000	ט			P
Potassium		1867.0000	В	1886.0000	В	1.0		P
Selenium		1.7000	υ	1.7000	ט			P
Silver		2.2000	บ	2.2000	U			P
Sodium		3385.0000	В	3407.0000	В	0.6		P
Thallium		2.8000	υ	2.9720	В	200.0		P
Vanadium		2.0000	Ū	2.0000	U			P
Zinc		3.0900	В	3.3390	В	7.7		P

7 LABORATORY CONTROL SAMPLE

Lab	Name:	STL BURLINGTO	ON		Contract:	23046			
Lab	Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCW004	

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

	Aqueo	us (ug/L)			Solid	1 (mg/kg)	
Analyte	True	Found	%R	True	Found	c ·	Limits	%R
Aluminum	51000.0	51820.00	101.6					
Antimony	2000.0	2143.00	107.2					
Arsenic	1050.0	1084.00	103.2]	<u> </u>
Barium	500.0	. 509.70	101.9					
Beryllium	J 500.0	512.50	102.5					
Cadmium	525.0	521.70	99.4				1	
Calcium	50000.0	50990.00	102.0			Π		
Chromium	500.0	508.30	101.7			Π		
Cobalt	500.0	503.90	100.8					
Copper	500.0	517.70	103.5					
Iron	50500.0	51970.00	102.9					
Lead	1015.0	1021.00	100.6					
Magnesium	50000.0	51250.00	102.5			1		
Manganese	500.0	504.50	100.9			T		
Mercury	1.0	0.96	96.0				1	
Nickel	500.0	507.50	101.5				ļ	
Potassium	50000.0	50830.00	101.7			T		
Selenium	525.0	542.60	103.4			T	ĺ	<u> </u>
Silver	500.0	422.90	84.6				1	
Sodium	50000.0	51680.00	103.4			II		
Thallium	550.0	538.70	97.9					
Vanadium	500.0	512.10	102.4					
Zinc	500.0	514.60	102.9					
Cyanide	120.0	121.37	101.1			Π		

9 ICP SERIAL DILUTIONS

SAMPLE NO.

GRANSTSFW53L

Lab Name: STL BURLINGTON Contract: 23046

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

	Concentra		ii onics. ug/L				
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Differ- ence	Q	М
Aluminum	93.88	В	235.20	В	150.5		P
Antimony	4.70	Ū	23.50	Ū			P
Arsenic	13:14		24.00	ט	100.0	İ	P
Barium	54.75	В	55.07	В	0.6		P
Beryllium	0.20	Ū	1.00	U		1	P
Cadmium	0.60	Ū	3.00	ט		i i	P
Calcium	15090.00	İ	15200.00	В	0.7		P
Chromium	1.40	U	7.00	ט			P
Cobalt	2.00	U	10.00	ט		İ	P
Copper	2.40	U	12.00	U			P
Iron	112.80	İ	106.30	В	5.8		P
Lead	1.30	ט	6.50	U			P
Magnesium	3472.00	В	3458.00	В	0.4		P
Manganese	18.80		17.69	В	5.9		P
Nickel	2.10	Ŭ	10.50	Ū			P
Potassium	1851.00	В	1965.00	Ū	100.0		P
Selenium	1.70	U	8.50	U			P
Silver	2.20	U	11.00	Ū	1		P
Sodium	3130.00	В	2410.00	В	23.0		P
Thallium	3.09	В	14.00	ט	100.0		P
Vanadium	2.00	U	10.00	Ū	İ		P
Zinc	3.57	В	5.14	В	44.0		P

ICP SERIAL DILUTIONS

SAMPLE NO.

GRANSTSFW53FL

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)		% Differ- ence		
Aluminum	79.26	I B	362.70	C IB	357.6	Q	М
Antimony	4.70	l U	23.50		357.6	<u> </u>	P
Arsenic	13.06	1	23.30	<u> </u>	100.01	<u></u>	P
Barium	54.95	l IB	55.77	<u> </u>	100.0		P
Beryllium	0.20	l U	1.00	1	1.5	<u> </u>	P
Cadmium	0.60	ΙŪ	3.00	1			P
Calcium	15340.00	1	15510.00	1			P
Chromium	1.40	ן טן		<u> </u>	1.1		P
Cobalt	2.00	l U	7.00		<u> </u>		P
Copper	2.40	ן ט ן	10.00				P
Iron	16.80	ן ט ו	12.00		·		Р
Lead	1.30	ן ט <u>ו</u>	84.00				P
Magnesium			6.50				Р
Manganese	3535.00	В	3545.00		0.3		P
Nickel	10.31	В	8.54		17.2		₽
	2.10	ן ט	10.50	ט			P
Potassium	1867.00	В	1965.00	ַ	100.0		P
Selenium	1.70	ן ט	8.50	<u>ט</u>			P
Silver	2.20	ן ט	11.00	<u>ט</u>	11		P
Sodium	3385.00	В	2363.50	ן ט	100.0		P
Thallium	2.80	ָ ט	14.00	וט		-+	P
Vanadium	2.00	<u>ט</u>	10.00	ווט	<u> </u>		P
Zinc	3.09	В	5.00	11	100.0		P

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON			Contract: 23046				
Lab Code: STLVT C	Case No.: <u>23</u>	046	SAS No.		SDO	G No.: GCW004	
ICP ID Number:			Date:	7/1/2003			
Flame AA ID Number: La	achat Cyanio	le					
Furnace AA ID Number: _							
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м	
	Cyanide			10	10.0	AS	

Comments:

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON			Contrac	t: <u>23046</u>			
Lab Code: STLVT Case No.: 23046			SAS No.	•	SDG	No.	: GCW004
ICP ID Number:			Date:	7/1/2003			
Flame AA ID Number: <u>Le</u> Furnace AA ID Number: _	eman Hydra	AA					
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м	
	Mercury	253.70		0.2	0.10	CV	

Comments:

10 INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCW004
ICP ID Number: TJA ICAP 4	Date: 7/1/2003
Flame AA ID Number:	
Furnace AA ID Number:	

	,	······································			
Analytė'	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М
Aluminum	308.215		200	23.6	P
Antimony	206.838		60	4.7	P
Arsenic	189.042		10	4.8	P
Barium	493.409		200	5.9	₽
Beryllium	313.042		5	0.2	P.
Cadmium	226.502		5	0.6	P
Calcium	317.933		5000	182.1	P
Chromium	267.716		10	1.4	P
Cobalt	228.616		50	2.0	P
Copper	324.754		25	2.4	P
Lead	220.353		3	1.3	P
Magnesium	279.078		5000	178.3	P
Manganese	257.610		15	0.7	P
Nickel	231.604		40	2.1	P
Potassium	766.491		5000	393.0	P
Silver	328.068		10	2.2	P
Sodium	330.232		5000	472.7	P
Vanadium	292.402		50	2.0	P
Zinc	213.856		20	1.0	P

Comments:	

INSTRUMENT DETECTION LIMITS (QUARTERLY)

10

Lab Name: STL BURLINGTON	Contract: 23046	• .
Lab Code: STLVT Case No.: 23046	SAS No.: SDG No.: GCW004	
ICP ID Number: TJA ICAP 6	Date: 7/1/2003	
Flame AA ID Number:		
Furnace AA ID Number:		

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М
Iron	271.441		100	16.8	P
Selenium	196.026		5	1.7	P
Thallium	190.864		10	2.8	P

Comments:

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BUR	LINGTON	 	Contract:	23046
Tab	Codo: STITE	Case No :	23046	SAS No :	SDG No.: GCW004

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length	I	Interelement	Correction 1	Factors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Ba
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.000000	0.0008950	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000330	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0006300	0.0000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.000000	-0.0000220	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000200	0.000000	-0.0000900	0.0000000	0.0000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.000000	0.0000490	0.0000000	0.0000000
Zinc	213.86	0.0000250	0.000000	0.0000630	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: S	TL BURLINGTON			Contract:	23046		
Lab	Code: S	TLVT	Case No.:	23046	SAS No.:		SDG No.: GCW004	

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length		Interelement	Correction	Factors for	:
Analyte	(nm)	Co	Cr	Cu	Mn	Мо
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.000000	-0.0024800
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.000000	0.0013380
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.000000	0.000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.000000	0.000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Chromium	267.72	0.0001150	0.000000	0.0000000	0.0000000	0.0001350
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.1059800	0.0000000	0.0000000	0.0000000	0.0036200
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0004300	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007920
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	-0.0160000
Zinc	213.86	0.0000000	0.0000000	0.0003300	0.0000000	0.0000000

Comments:		 		 	 	
	 	 		 <u> </u>		

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046	

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

h	Wave-]	Interelement	Correction	Factors for:	
Analyte	length		ccrcrcmec	COTTECCTOR	raccors ror.	
	(nm)	Ni	Sb	Sn	V	Zn
Aluminum	308.22	0.0000000	0.000000	0.1440400	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.000000	0.0000000	0.0006280	0.0000000
Boron	249.68	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.000000	0.0000000	-0.000192	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0237000	0.0000000
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	-0.1212200	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.1177000
Thallium	190.86	0.0000000	0.000000	0.0000000	0.0025400	0.0000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0052400	0.000000	0.0000000	0.0000000	0.0000000

Comments:	 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046	

ICP ID Number: TJA ICAP 6 Date: 10/1/2002

	Wave-					
	length]	Interelement	Correction 1	Factors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Ag
Aluminum	308.215	0.0000000	0.0000000	-0.0002180	0.0000000	0.0000000
Antimony	206.838	0.0000080	0.000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000170	0.000000	-0.0000590	0.0000000	0.0000000
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.000000	-0.0000740	0.0000000	0.0000000
Cadmium	226.502	0.0000010	0.000000	0.0000590	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000100	0.000000	-0.0000200	0.0000060	0.0000000
Cobalt	228.616	0.0000000	0.0000000	-0.0000400	0.0000000	0.0000000
Copper	324.754	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0001740	0.000000	0.0000000	-0.001587	0.0000000
Lead	220.353	-0.0000300	0.0000000	0.0000550	-0.000006	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	-0.0000520	0.0000000	0.0000000
Phosphorus	178.287	0.0000070	0.000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.000000	-0.0007500	0.0000000	0.0000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000240	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000080	0.000000	-0.0001100	0.0000000	0.0000000
Tin	189.989	0.0000090	0.000000	-0.0000750	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000140	0.000000
Vanadium	292.402	0.0000000	0.000000	0.0000030	0.0000040	0.0000000
Zinc	206.200	0.0000300	0.000000	-0.0000600	0.0000000	0.0000000

Comments:	 	 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: <u>STL BURLINGTON</u>	Contract:	23046

ICP ID Number: TJA ICAP 6 Date: 10/1/2002

	Wave-	T	[ntoro] omont	Correction	Factors for	
Analyte	length		nucereremenc	Correction	eactors for	•
Analyce	(nm)	As	В	Be	Cd	Со
Aluminum	308.215	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Arsenic	189.042	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Beryllium	313.042	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Boron	249.678	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Cadmium	226.502	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0000000	0.000000	0.0000000	0.0000000	-0.0082960
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Potassium	766.491	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	-0.0001900
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Thallium	190.864	0.0000000	0.000000	0.0000000	0.0000000	0.0002350
Tin	189.989	0.0000000	0.000000	-0.0004370	0.0000000	0.000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.000000
Vanadium	292.402	0.0000000	0.000000	0.0000000	0.000000	0.000000
Zinc	206.200	0.0000000	0.0000000	0.0000000	0.000000	0.000000

Comments:	:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON		Contract: 23046	
Lab	Code: STLVT	Case No.: 23046	SAS No.:	SDG No.: GCW004

ICP ID Number: <u>TJA ICAP 6</u> Date: <u>10/1/2002</u>

	Wave- length					
Analyte	(nm)	Cr	Cu	Mn	Na	Ni
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0078510	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	-0.0002840	0.000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.000000	0.0000000	0.0000000	-0.0001750
Calcium	317.933	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.441	0.0008900	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.000000	0.0000000	0.0000000	0.0000800
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	178.287	-0.0007400	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.232	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.000000	-0.0004500	0.0000000	0.0000000
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.000000	0.000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0044570	0.0000000	0.0000000	0.0000000	0.0000000

Comments:	 					 	 	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	 Contract:	23046	

ICP ID Number: TJA ICAP 6 Date: 10/1/2002

	Wave-	Interelement Correction Factors for:					
Analyte	length (nm)	Pb	Sb	Se	Si	Tl	
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.000000	
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.000000	
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.000000	
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Phosphorus	178.287	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.026	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Silver	328.068	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Sodium	330.232	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium	190.864	-0.0003500	0.0000000	0.0000000	0.0000000	0.0000000	
Tin	189.989	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Titanium	334.941	0.0000000	0.000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.402	0.000000	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc	206.200	0.0003900	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:			

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	ab Name: STL BURLINGTON				Contract:	23046	1046		
Lab	Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.: GCW004		

ICP ID Number: <u>TJA ICAP 6</u> Date: <u>10/1/2002</u>

	Wave- length		Interelement	Correction	Factors	for:
Analyte	(nm)	v	Zn			
Aluminum	308.215	0.0173200	0.0000000			
Antimony	206.838	-0.0012700	0.0000000			
Arsenic	189.042	-0.0002800	0.0000000			
Barium	493.409	0.0000000	0.0000000			
Beryllium	313.042	0.0004800	0.0000000			
Boron	249.678	0.0000000	0.0000000			
Cadmium	226.502	0.0000000	0.0000000			
Calcium	317.933	0.0000000	0.0000000			
Chromium	267.716	-0.0003600	0.0000000			
Cobalt	228.616	0.0000000	0.0000000			
Copper	324.754	0.0000000	0.0000000			
Iron	271.441	0.0081200	0.0000000			
Lead	220.353	-0.0000850	0.0000000			
Magnesium	279.079	0.0000000	0.0000000			
Manganese	257.610	0.0000000	0.0000000			
Molybdenum	202.030	0.0000000	0.0000000			
Nickel	231.604	0.0000000	0.0000000			
Phosphorus	178.287	0.0000000	0.0164830			
Potassium	766.491	0.0000000	0.0000000			
Selenium	196.026	0.0000000	0.0000000			
Silver	328.068	-0.0003350	0.0000000			
Sodium	330.232	-0.1479730	0.6581000			
Strontium	421.552	0.0000000	0.0000000			
Thallium	190.864	0.0014900	0.0000000			
Tin	189.989	0.0000000	0.0000000			
Titanium	334.941	0.0000000	0.0000000			
Vanadium	292.402	0.0000000	0.0000000			
Zinc	206.200	-0.0004730	0.0000000			

Comments:	-	 	 	

12 ICP LINEAR RANGES (QUARTERLY)

Lab Na	ame:	STL	BURLINGTON	Contract:	23046
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Lab Code: STLVT ___ Case No.: 23046 SAS No.: ___ SDG No.: GCW004

ICP ID Number: TJA ICAP 4 Date: 7/1/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	5000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	100000.0	P
Copper	10.00	10000.0	P
Lead	10.00	10000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Nickel	10.00	10000.0	P
Potassium	10.00	100000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Vanadium	10.00	100000.0	P
Zinc	10.00	5000.0	P

Comments:			
			

12 ICP LINEAR RANGES (QUARTERLY)

Lab	Name:	STL	BURLINGTON	Contract:	23046

ICP ID Number: TJA ICAP 6 Date: 7/1/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Iron	10.00	1000000.0	P
Selenium	10.00	5000.0	P
Thallium	10.00	5000.0	P

Comments:

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: AS

EPA	Preparation Date	Initial Volume mL	Volume (mL)		
Sample No.	Date	1	(11117)		
GRANSTPWP53	7/31/2003	50.0	50.0		
GRANSTPWP54	7/31/2003	50.0	50.0		
GRANSTSFW53	7/31/2003	50.0	50.0		
GRANSTSFW53S	7/31/2003	50.0	50.0		
ICV	7/31/2003	50.0	50.0		
LCSD0731C	7/31/2003	50.0	50.0		
MAGNADSFW13	7/31/2003	50.0	50.0		
MAGNADSFW55	7/31/2003	50.0	50.0		
MAGNPDSFW11	7/31/2003	50.0	50.0		
MAGNSTPWP02	7/31/2003	50.0	50.0		
MAGNSTPWP03	7/31/2003	50.0	50.0		
MAGNSTSFW03	7/31/2003	50.0	50.0		
PBW0731C	7/31/2003	50.0	50.0		

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PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
GRANSTPWP53F	8/5/2003	100.0	100.0
GRANSTPWP54F	8/5/2003	100.0	100.0
GRANSTSFW53	8/5/2003	100.0	100.0
GRANSTSFW53D	8/5/2003	100.0	100.0
GRANSTSFW53F	8/5/2003	100.0	100.0
GRANSTSFW53FD	8/5/2003	100.0	100.0
GRANSTSFW53FS	8/5/2003	100.0	100.0
GRANSTSFW53S	8/5/2003	100.0	100.0
LCSW0805C	8/5/2003	100.0	100.0
MAGNADSFW13	8/5/2003	100.0	100.0
MAGNADSFW13F	8/5/2003	100.0	100.0
MAGNADSFW55	8/5/2003	100.0	100.0
MAGNADSFW55F	8/5/2003	100.0	100.0
MAGNPDSFW11	8/5/2003	100.0	100.0
MAGNPDSFW11F	8/5/2003	100.0	100.0
MAGNSTPWP02F	8/5/2003	100.0	100.0
MAGNSTPWP03F	8/5/2003	100.0	100.0
MAGNSTSFW03	8/5/2003	100.0	100.0
MAGNSTSFW03F	8/5/2003	100.0	100.0
PBW0805C	8/5/2003	100.0	100.0

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PREPARATION LOG

Lab	Name:	STL BURLINGTON	Contract:	23046

Method: P

EPA \$ample No.	Preparation Date	Initial Volume mL	Volume (mL)				
GRANSTPWP53F	8/8/2003	100.0	100.0				
GRANSTPWP54F	8/8/2003	100.0	100.0				
GRANSTSFW53	8/8/2003	100.0	100.0				
GRANSTSFW53D	8/8/2003	100.0	100.0				
GRANSTSFW53F	8/8/2003	100.0	100.0				
GRANSTSFW53FD	8/8/2003	100.0	100.0				
GRANSTSFW53FS	8/8/2003	100.0	100.0				
GRANSTSFW53S	. 8/8/2003	100.0	100.0				
LCSW0808I	8/8/2003	100.0	100.0				
MAGNADSFW13	8/8/2003	100.0	100.0				
MAGNADSFW13F	8/8/2003	100.0	100.0				
MAGNADSFW55	8/8/2003	100.0	100.0				
MAGNADSFW55F	8/8/2003	100.0	100.0				
MAGNPDSFW11	8/8/2003	100.0	100.0				
MAGNPDSFW11F	8/8/2003	100.0	100.0				
MAGNSTPWP02F	8/8/2003	100.0	100.0				
MAGNSTPWP03F	8/8/2003	100.0	100.0				
MAGNSTSFW03	8/8/2003	100.0	100.0				
MAGNSTSFW03F	8/8/2003	100.0	100.0				
PBW0808I	8/8/2003	100.0	100.0				

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Lachat Cyanide QC8000 Method: AS

Start Date: 7/31/2003 End Date: 7/31/2003

EPA				Analytes								s															
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	Α	N	T	v	Z	С
No.				L	В	s	A	E	D	•	R	0	ט	E		G		G	I		E	G		L	İ	И	1
S0	1.00	1728								H										\vdash				\vdash	 	┝┥	х
S10	1.00	1729		İ				i												i	I					Н	Х
s30	1.00	1730								i i										一	<u> </u>					H	Х
S50	1.00	1731																			<u> </u>					Н	х
S100	1.00	1732															П		H	H	<u> </u>					\vdash	x
S200	1.00	1733																			l					H	х
s300	1.00	1734																							_		х
ICV	1.00	1735															П		_		<u> </u>		Н			Н	X
ICB	1.00	1736																								H	x
LRS	1.00	1737													\dashv												X
LRS	1.00	1738															П	_								一	X
CCV	1.00	1739	- •									1				ᅦ			_		L 	_				\dashv	X
CCB	1.00	1740								1	_	_	ᅥ	ᅥ	_	ᅥ						-	_				X
PBW0731C	1.00	1741							_		 	ᅥ	\dashv	\neg	_	၂	1	_							Н	\dashv	X
ZZZZZZ	1.00	1742					_				_	一	寸	_		┪	\dashv	\dashv				\dashv	_	_		\dashv	
LCSD0731C	1.00	1743						一	_	+	-	一	\dashv	╌┤	1	┪	\dashv	-	_	Н		\dashv	+	_	{	\dashv	x
ZZZZZZ	1.00	1744	******			_	一	一		\dashv	\dashv		_	_	\dashv	ᅥ	_	-				-		\dashv	\dashv	\dashv	
ZZZZZZ	1.00	1745					┪	_	ᅱ	+	_	+			\dashv	\dashv	+					\dashv		_	_	\dashv	
ZZZZZZ	1.00	1746				- i		一	ᅥ	_		\dashv	十		\dashv	1	_	ᅥ				_	_	ᅱ		\dashv	—
MAGNSTPWP02	1.00	1747			\neg	一	\dashv		\dashv	寸	\dashv	ᅥ	\dashv	_	┰┼	ᅥ	\dashv	\dashv	-	-	\dashv	_		_	-	\dashv	<u>_</u>
MAGNSTSFW03	1.00	1748					_	-	_	+	\dashv	ᆉ	1	\dashv	十	\dashv	ᅥ	\dashv	\neg		\dashv	ᅥ	_	\dashv	ᅱ	\dashv	$\frac{x}{x}$
MAGNSTPWP03	1.00	1749				\dashv		┪	ᅥ	\dashv	+	_	\dashv	\dashv	十	-	ᅥ	_		_	ᅥ	ᅥ	ᅱ	┥	ᅱ		$\frac{\hat{x}}{x}$
MAGNPDSFW11	1.00	1750				급	-1		ᅥ	十		+	\dashv	\dashv	┰┼	\dashv	+	\dashv			┥	\dashv	ᆛ	\dashv	닊		$\frac{x}{x}$
CCV	1.00	1751			-	ᅥ			ᆛ	+	\dashv	ᆉ	\dashv	\dashv	\dashv	ᅥ	\dashv	_	\dashv		-	ᅱ	ᆛ	ᅱ	4	!	$\frac{x}{x}$
ССВ		1752				1	1			+	十	ᆛ	ᆉ	\dashv	\dashv	-	+	ᅱ	\dashv	{	_	+	+	\dashv	ᅱ		$\frac{\mathbf{x}}{\mathbf{x}}$
MAGNADSFW13		1753			_	\dashv	\dashv		ᅥ	 	ᆉ	ᆛ	\dashv	\dashv	\dashv	\dashv	\dashv	+	\dashv	_	\dashv	\dashv	_	┥	┪		$\frac{\lambda}{x}$
GRANSTPWP54		1754		+	_	一	-	\dashv	十	_	\dashv	+	\dashv	\dashv	\dashv	\dashv		\dashv		4	\dashv	ᅱ	\dashv		_	<u></u> -	$\frac{\mathbf{x}}{\mathbf{x}}$
GRANSTPWP53		1755		-	┪	<u>-</u>	\dashv	+	寸	ᆉ	+	\pm	ᆉ	\dashv	\dashv	+	_	ᅥ	╌┤	ᅥ	-	\dashv	+	+	1		$\frac{\hat{x}}{x}$
GRANSTSFW53	1.00			\dashv	1		一		+	十	\dashv	+	\dashv			\dashv	\dashv	-	\dashv	_	-	-	+	+			$\frac{\hat{x}}{x}$
GRANSTSFW53S	1.00				ᅱ	<u> </u>	 	\dashv	+	+	+	ᆉ	╅	+		┥	\dashv	-	ᅱ		1	-	+	\dashv	ᆛ	— <u>+</u>	$\frac{\hat{x}}{x}$
MAGNADSFW55	1.00						\dashv	\dashv	十	-+	\dashv	+	十	-	╅	\dashv	\dashv	+	┪	ᆛ		\dashv	+	-	+	-	$\frac{\hat{x}}{x}$
ZZZZZZ	1.00	 +		+	ᅥ	-+	\dashv	-	1	-	\dashv	_ <u> </u>	\dashv	\dashv	十	ᆉ	\dashv	\dashv	-	_	\dashv	+	+	+	ᆛ	ᆛ	_
ZZZZZZ	1.00			\dashv	\dashv	_	\dashv	\dashv	\dashv	 	\dashv	井	十	ᆛ	+	\dashv	\dashv	\dashv	-		-{	\dashv	井	+	\dashv	\dashv	_
ZZZZZZ	1.00			+	+	{	+	井		ᆉ	\dashv	ᆉ	+	\dashv	+	\dashv	\dashv	+		ᆛ	-{	\dashv	ᆛ	+	+	+	_
ZZZZZZ	1.00		<u> </u>	\dashv	\dashv	\dashv	\dashv	\dashv	+	+		+	+	ᆉ	+	+	\dashv	\dashv	+		\dashv	-{	1	+	+	\dashv	_
CCV	1.00	<u>!</u>		+	+			+	1	+	+	\dashv	+	+	+	\dashv	+	+	4	4	-	-	+	-	4	+	- ;
ССВ		1803		\dashv			-	+	+	<u> </u>	-+	+	+	+		+	\dashv	+	4	_		4	4	4	\dashv	_	$\frac{\mathbf{x}}{\mathbf{x}}$

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/8/2003 End Date: 8/8/2003

EPA			Analytes								s	_									_					
Sample No.	D/F	Time	% R	A L	S B	A S		B E				0				M N	H G	N I			A G		T L		Z N	
so ··	1.00	1355															Х							\Box	\Box	_
S0.2	1.00	1356															Х									_
S0.5	1.00	1358															Х							\perp		
S1	1.00	1400															Х							$oldsymbol{\perp}$		
S5	1.00	1402															Х								oxed	
S10	1.00	1404															Х							$oldsymbol{\perp}$		
ICV	1.00	1406															Х							$oldsymbol{\perp}$	\perp	
ICB	1.00	1408		ĺ									Ī				Х							\perp		
CRA	1.00	1410															Х							\Box		
CCV	1.00	1411															Х									
CCB	1.00	1413															х							\prod	\prod	_
ZZZZZZ	1.00	1415																								
ZZZZZZ	1.00	1417					Ī																	\Box		
ZZZZZZ	1.00	1418										Π														
ZZZZZZ	1.00	1420					Ī						Ī		Γ											
ZZZZZZ	1.00	1422					Ī		Γ				Ī													
ZZZZZZ	1.00	1424		Ī	İ	İ	Ī			Ī		Π	1													
ZZZZZZ	1.00	1425		Ī	Ī		Ì		Γ						Π	Π				1						
ZZZZZZ	1.00	1427		İ				1												<u> </u>						
ZZZZZZ	1.00	1429			Ī							Π														
CCV	1.00	1431		Π													Х			L				\Box	\sqcup	
CCB	1.00	1433												<u> </u>			X						Ш		\Box	L
ZZZZZZ	1.00	1435																			L		Ш			<u></u>
ZZZZZZ	1.00	1436	ĺ							<u> </u>									L				Ш			
ZZZZZZ	1.00	1438								Π																<u></u>
ZZZZZZ	1.00	1440		Γ			Ī																			
ZZZZZZ	1.00	1442		Π																				$oldsymbol{ol}}}}}}}}}}}}}}}}}}$	$_ oldsymbol{\rfloor}$	L
ZZZZZZ	1.00	1443			Π																					L
ZZZZZZ	1.00	1445			Π		Π			Ī		Ι.														<u></u>
ZZZZZZ		1447		Π	ĺ	Ī		Π			Π	Π			Π											L
ZZZZZZ	1.00	1449				П	1												L		Ĺ					L
ccv	1.00	1450		Î		I											X			Ĺ	L					L
CCB	1.00	1452		Γ						L							X						Ш	\Box		L
ZZZZZZ	1.00	1454																								L
PBW0805C	1.00	1455		Γ													X								Ш	L
LCSW0805C	1.00	1458		Π			Ī										Х									L
MAGNSTPWP02F	1.00	1459															Х									L
MAGNSTSFW03	1.00	1501			Π				Τ			Π	Ī		Π		x	:	Γ	Ī		1				

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/8/2003 End Date: 8/8/2003

EPA				Analytes																							
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	н	N	K	S	A	N	T	V		
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	И	G	I		E	G	A	니		И	Į,
MAGNSTSFW03F ···	1.00	1503																Х									L
MAGNSTPWP03F	1.00	1505					<u> </u>											Х				L	Ш		_	_	Ļ
MAGNPDSFW11	1.00	1507									L							Х			L				_	╝	Ļ
MAGNPDSFW11F	1.00	1509					L						Ш					Х			L		Ш		_	لــ	L
CCV	1.00	1510					L				L		\bigsqcup					Х			L	L	Ш		_		Ļ
ССВ	1.00	1512					L			انا								X			L	L					L
MAGNADSFW13	1.00	1514					<u> </u>	<u> </u>										Х				<u> </u>	Ш				Ļ
MAGNADSFW13F	1.00	1516										L.,	Ш					Х									L
GRANSTPWP54F	1.00	1518							L					L.,				Х			L	_	Ш				Ļ
GRANSTPWP53F	1.00	1520																Х		<u> </u>					_		Ļ
GRANSTSFW53	1.00	1522					<u> </u>											Х									Ļ
GRANSTSFW53D	1.00	1524							L									Х				L					ļ
GRANSTSFW53S	1.00	1525										L						X			L						Ļ
GRANSTSFW53F	1.00	1527			I													Х		L_		L				Ш	Ļ
GRANSTSFW53FD	1.00	1529																Х		<u> </u>		<u> </u>					Ļ
ccv	1.00	1530										_					Ш	X	_	L.		L				L	Ļ
CCB	1.00	1532					L											Х								<u></u>	Ļ
GRANSTSFW53FS	1.00	1535																Х				L				L	Ļ
MAGNADSFW55	1.00	1537																Х				L					Ļ
MAGNADSFW55F	1.00	1539																Х	_			L		Щ		L	ļ
CCV	1.00	1541																Х				L	L			L	ļ
ССВ	1.00	1543			1	1	ĺ		Π	Ī	1	Π	1					X				1				_	1

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 8/22/2003 End Date: 8/22/2003

EPA												***	A	ma	ly	tes	3										
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	S	A	N	T	V	Z	c
No.				L	В	s	A		D	A	R		ט	E	В	G	N	G	I		E	G	A	L		N	И
S 0	1.00	0120		Х	Х	х	х	Х	Х	Х	Х	х	Х		Х	Х	Х		X	X		Х	Х		x	Х	Ţ
S	1.00	0125		Х						х						Х				X			Х		ᆜ	\perp	_
S	1.00	0129			х	X									Х										╛	\perp	_
S	1.00	0133					х	х	Х		X	х	х				Х		х			х			x	X	_!
LRS	1.00	0139		х	Х	X	Х	Х	X	Х	Х	х	x		Х	x	х		Х	Х		Х	Х		х	x	_
LRS	1.00	0144		х	х	Х	x	Х	Х	х	Х	х	\mathbf{x}		Х	Х	X		Х	Х			X		x	х	_ļ
LRS	1.00	0149		х	X	Х	Х	х	Х	Х	Х	x	\mathbf{x}		X.	X	Х		Х	Х		х	Х		x	X	_!
ICV	1.00	0155		x	х	х	Х	Х	х	x	Х	х	x		Х		Х		Х	Х		Х	Х	Ш	хļ	X	_!
ICB	1.00	0200		х	Х	Х	Х	х	x	х	X	х	x		Х		Х		Х	Х	L	х	Х		χĮ	x	_!
ICSA	1.00	0205		х	х	Х	Х	х	x	х	x	x	х		Х	X	X		х	Х	L	х	Х	Ц	x	X	_!
ICSAB	1.00	0210		X	х	Х	X	x	x	Х	X	х	х		Х		Х	<u> </u>	х	Х	L	х	Х	Щ	х	x	[
CRI	1.00	0215		x	Х	Х	X	х	Х	Х	X	x	х		Х	X	Х		X	Х	L	X	Х	Щ	хļ	X	_!
ccv	1.00	0220		х	х	х	Х	x	х	x	Х	x	х		X		Х		Х	Х	_	Х	Х	Щ	хļ	x	_!
CCB	1.00	0225		x	Х	х	Х	Х	x	х	Х	х	х		Х	X	X		х	Х		х	Х	Щ	x	х	_!
PBW0808I	1.00	0231		X	Х	Х	Х	Х	Х	Х	Х	x	х		Х	X	Х		Х	Х		Х	Х	Ц	x	x	_
LCSW0808I	1.00	0236		Х	Х	х	X	х	x	x	Х	x	x		Х	X	Х		Х	Х	<u>L</u> .	Х	Х	Щ	x	x	_!
MAGNSTPWP02F	1.00	0241		X	Х	Х	X	Х	Х	х	Х	х	х		Х	X	Х		Х	Х		Х	Х	Ц	х	x	_!
MAGNSTSFW03	1.00	0246		Х	х	х	Х	x	Х	Х	x	х	х		х	X	X		X	Х	<u> </u>	Х	Х	Ц	x	х	_!
MAGNSTSFW03F	1.00	0251		Х	Х	х	Х	х	x	Х	X	х	х		Х	X	X		X	Х		Х	Х	Ц	х	x	_!
MAGNSTPWP03F	1.00	0256		x	Х	х	Х	X	X	x	X	x	Х		Х	_	Х	_	Х	X	_	X	X	Ц	хļ	X	_!
MAGNPDSFW11	1.00	0301		х	х	Х	X	X	х	x	X	_	x	<u> </u>	Х		Х	<u> </u>	X	X	<u> </u>	Х	х	Щ	X	x	_!
MAGNPDSFW11F	1.00	0306		X	Х	х	Х	X	X	x	-	х	Х	<u> </u>	Х		Х		X	Х	!	Х	!	<u> </u>	x	X	_!
MAGNADSFW13	1.00	0311		x	X	Х	х	X	X	x		х	x	<u> </u>	Х	<u> </u>	X	<u> </u>	X	X	<u>. </u>	Х	X	ĻĻ	X	X	!
MAGNADSFW13F	1.00	0316		х	x	Х	Х	X	x	X		x	x	<u> </u>	Х	<u> </u>	х		X	X		Х	!	: :	X	Х	_!
CCV	1.00	0321		x	Х	X	X	Х	x	X	X	x	x	<u> </u>	Х	X	X		x	X	<u>. </u>	Х	X	-	X	X	_
ССВ	1.00	0327		x	Х	x	X	x	<u> </u>	x		х	x	<u> </u>	Х	 	Х		X	X	<u> </u>		X		х	X	_
GRANSTPWP54F	1.00	0332		Х	Х	х	X	x	X	X	_	х	x	<u> </u>	X	<u> </u>	Х	!	X	X	<u> </u>	ļ	X		Х	X	_
GRANSTPWP53F	1.00	0337		x	х	x	Х	X	-	X		х	X	<u> </u>	Х	<u> </u>	Х	 	X	X	-	X	!		х	X	_
GRANSTSFW53	1.00	0342		x	Х	X	x	Х	1	X		x	x		Х	_	Х		X	X	_	X			X	X	_
GRANSTSFW53L	5.00	0347		X	X	Х	X	x	x	X	X	x	x	<u> </u>	Х	Х	Х	<u>L</u>		X	L	_	x			X	_
GRANSTSFW53A	1.00	0352		X	X	x	X	X	X		X	x	x	<u> </u>	X	Ļ	Х	Ļ.	X	! 	<u> </u>	X	!			Х	
GRANSTSFW53D	1.00	0357		x	x	x	X	x	Х	X	X	x	x	<u> </u>	X	x	-	! -		X	_	_	Х	-			
GRANSTSFW53S	1.00	0402				х		<u> </u>	<u> </u>		_	x	-		x	<u>! </u>	x	!	X	<u> </u>	Ļ	X	!	•	Х	X	_
GRANSTSFW53F	1.00	0407	ļ		1	x					<u> </u>		_		+	x		!	X		-		X	! !	х	X	:
GRANSTSFW53FL	5.00	0412		-	<u> </u>	х	<u> </u>				•	-	-		!	x		! -	X	<u> </u>	L		Х			X	
GRANSTSFW53FA	1.00	0418				x					_	x	_	_	Х	ب	X	! -	X	+	Ļ	X	!			X	_
ccv	1.00	0423		x	X	x		<u> </u>	•		-	-	-			Х	-	-	X	+-		<u> </u>	X			Х	
ССВ	1.00	0428		X	x	x	X	X	X	X	X	x	x	$oldsymbol{ol}}}}}}}}}}}}}}}}}}$	X	Х	X	$oldsymbol{ol}}}}}}}}}}}}}}}}}$	X	X	L	X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 8/22/2003 End Date: 8/22/2003

EPA													7	lna	ly	te	s										
Sample	D/F	Time	% R.	A	s	Α	В	В	С	С	С	C	С	F	P	M	М	Н	N	K	S	A	N	T	V	Z	С
No.				L	В	S	A	E	D	A	R	0	U	E	В	G	И	G	I		E	G	A	L		И	N
GRANSTSFW53FD	1.00	0433		х	х	х	х	Х	х	х	Х	х	х		Х	X	Х		X	X		X	Х		X	X	_
GRANSTSFW53FS	1.00	0438		х	х	х	х	x	X		X	x	x		X		Х		X			X			х	Х	
MAGNADSFW55	1.00	0443		х	х	х	x	х	x	x	x	x	x		X	X	Х		X	X		x	x		x	Х	
MAGNADSFW55F	1.00	0448		х	х	х	X	х	х	x	Х	x	x		Х	X	х		Х	Х		X	x		x	х	:
ICSA	1.00	0453		х	х	x	X	х	х	х	Х	х	х		Х	X	х		Х	Х		Х	Х		X	Х	
ICSAB	1.00	0458		x	х	x	x	х	x	x	Х	x	x		X	X	x	٠	Х	Х		х	x		х	X	
CRI	1.00	0504		х	Х	х	x	х	х	x	х	x	x		X	X	X		Х	Х		x	х		х	Х	
CCV	1.00	0509	,	х	х	х	X	Х	X	x	X	x	x		х	Х	х		Х	Х		х	х		Х	Х	
ССВ	1.00	0514		Х	Х	Х	Х	Х	X	Х	Х	х	x		Х	x	Х		x	х		Х	Х		Х	Х	_

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 8/29/2003 End Date: 8/29/2003

EPA													A	ma	lyt	es	3										
Sample	D/F	Time	% R	A	s	A	В	В	С	С	С	С	С	F	P	М	М	н	N	к	S	A	N	T	٧Ţ	z	С
No.				L	В	s	A	E	D	A	R	0	บ	E	в	G	И	G	I		E	G	A	L		N	N
S0	1.00	0150												х			Ì				X			x	П	\Box	
S	1.00	0154												х										\perp	\perp	\perp	
S	1.00	0158																			X			X			
S	1.00	0202																		لــــــــــــــــــــــــــــــــــــــ							
LRS	1.00	0206												х							X			Х			
LRS	1.00	0210					l			Ĺ				х							X	·	Ш	x			
LRS	1.00	0215												х							X			x		\perp	
ICV	1.00	0219			Î									x							X			x		\perp	
ICB	1.00	0223												х							X	<u> </u>		x		\perp	
ICSA	1.00	0227			Ī				Π	Π				\mathbf{x}							X			x		$oldsymbol{\perp}$	_
ICSAB	1.00	0231												х							x			х		$oldsymbol{\bot}$	
CRI	1.00	0235		Γ	Ī		1							x							Х			x		\perp	
CCV	1.00	0239			ĺ	П					Π			х							Х			Х			
CCB	1.00	0244		Ī	Ī	Ì	Ī			Ī			Π	х							X			Х			
PBW0808I	1.00	0248					Ī	Π		Ī				х							х			Х			
LCSW0808I	1.00	0252			Ī		İ					Ī		х							x	Ī		Х		\Box	
MAGNSTPWP02F	1.00	0256			İ		Ī	Ì			İ			x							х			x		$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$	
MAGNSTSFW03	1.00	0300					Ī				Ī			x							X			X			
MAGNSTSFW03F	1.00	0304					Ī	Ì	Π	Ī	Ī	1	Ī	х							Х			х			
MAGNSTPWP03F	1.00	0308		Ī		Ī	Ī			Π			Π	х							X			X			
MAGNPDSFW11	1.00	0312			İ		İ	İ		1	Π	T		х							X			Х			
MAGNPDSFW11F	1.00	0316		Ī			Ī		Π	Ī	Ī	Π		x	П						Х			x			
MAGNADSFW13	1.00	0320	<u> </u>		1		Î	Π	Ī			Π	Ī	х							X			x			
MAGNADSFW13F	1.00	0324		Π	Ī		Ī		Π	Ī	1		Ī	x							x			x			
ccv	1.00	0328			Ī		Ī	Ī	Π	Ī	Ī		Ī	х							X			x			
ССВ	1.00	0333	ĺ	İ	T		Ī	Ì	Γ		Ī			х							x			x			
GRANSTPWP54F	1.00	0337		T	Î	T	Ī	Π	П	Ī				x							X			Х			
GRANSTPWP53F	1.00	0341	<u> </u>	T	T	T	Ī	Ī	T	Ī	1	Π	Ī	x							Х			x			 L
GRANSTSFW53	1.00	0345			İ		Ī		Γ	Ī		Ī		x							X			X			<u> </u>
GRANSTSFW53L	5.00	0349		1			Ī	Γ	Π	Ī	Ī			x							X			Х			
GRANSTSFW53A	1.00	0353		1		1	Ī			Ī	Ī		Ī	x							X		Ι	X			
GRANSTSFW53D	1.00	0357		1	Τ	Ī	Ì	Π	T	Ī	Ī			х							X			x			_
GRANSTSFW53S	1.00	0401		Ī		Ī	Ī			Ī			Ī	х							x			x			Ĺ
GRANSTSFW53F	1.00	0405		T	T	Γ	Ī		Γ	$\overline{1}^{-}$				х							X			х		Ш	<u></u>
GRANSTSFW53FL	5.00	0410			T	Τ	Ī		I		Ī			х							X		L	X			L
GRANSTSFW53FA	1.00	0414	1		T	Ī	Ī							x							X		L	X		\bigsqcup	
CCV	1.00	0418		T		T	Ī							x							X			Х			
CCB	1.00	0422	1	Ī	1	T	Ī	Ī	Τ	Ī			T	x					Γ	Π	x			x			

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW004

Instrument ID Number: TJA ICAP 6 Method: P

Start Date: 8/29/2003 End Date: 8/29/2003

EPA													A	na	ly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	К	s	A	N	Т	v	Z	С
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	И	G	I		E	G	A	L		N	N
GRANSTSFW53FD	1.00	0426		İ										Х							Х			X			
GRANSTSFW53FS	1.00	0430		Ī										x							Х			х			L
MAGNADSFW55	1.00	0434												х	·					<u> </u>	X			Х			L
MAGNADSFW55F	1.00	0438							Γ					x							X			X			L
ICSA	1.00	0442				Ī								х							X	L		X		Ш	L
ICSAB	1.00	0446												х							X			Х		Ŀ	L
CRI	1.00	0451						Π						х							X			Х			Ŀ
CCV	1.00	0455				Π		Γ						х							X			х			L
CCB	1.00	0459		Ī	Π		Ī							х							X			Х			1



Geotechnical Analysis
Sample Data Summary Package
EASEAT
GCWØØ4

Sample Report Summary

Client Sample No.

MAGNSTSFW03

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535380

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/17/03		mV	1	10	161	
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		:						
		:						
				:				
			,					

Printed on: 09/08/03 01:58 PM

Sample Report Summary

Client Sample No.

MAGNPDSFW11

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535384

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/17/03		mV	1	10	167	
	:							
							Ì	
					-			

Printed on: 09/08/03 01:59 PM

Sample Report Summary

Client Sample No.

MAGNADSFW13

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535386

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/17/03	THE RESERVE TO SERVERS	m∨	1	10	193	
:								
·								

Printed on: 09/08/03 01:59 PM

Duplicate Sample Report Summary

Client Sample No.

GRANSTSFW53REP

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535392DP

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

	Bananatan	Analytical Run Date	Analytical Batch	11	Sam Res	ult	Dupli Sample Conc.	cate Result	DDD
Method	Parameter		Batch	Units	Conc.	Qual.		Qual.	
QSOA	Redox Potential D1498	08/17/03		m∨	184		183		1
		İ						! !	
						İ			
						:			
						ľ			
									-
			:						
									1

* Control Limit for RPD is +/- 20%, unless otherwise specified.

Printed on: 09/08/03 02:00 PM

Sample Report Summary

Client Sample No.

GRANSTSFW53

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535392

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
		08/17/03		mV	1	10	184	
					:			
						[
					•			
						:		
				ı				
	Method QSOA		Method Parameter Run Date QSOA Redox Potential D1498 08/17/03		Method Parameter Run Date Batch Units QSOA Redox Potential D1498 08/17/03 mV	Method Parameter Run Date Batch Units DF QSOA Redox Potential D1498 08/17/03 mV 1	Method Parameter Run Date Batch Units DF RL QSOA Redox Potential D1498 08/17/03 mV 1 10	Method Parameter Run Date Run Date Batch Units DF RL Conc. GSOA Redox Potential D1498 08/17/03 mV 1 10 184

Printed on: 09/08/03 02:01 PM

Sample Report Summary

Client Sample No.

MAGNADSFW55

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW004

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535394

Matrix: WATER

Client: EASEAT

Date Received: 07/22/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/17/03		mV	1	10	186	
					*	1		

Printed on: 09/08/03 02:01 PM

ASTM Method D1498: Standard Practice for Oxidation-Reduction Potential of Water

Client Code:	EASEAT	Analysis Date:	8/17/2003
ETR:	94961	Analysis Time:	12:00
SDG:	GCW004	Analyst:	MRD

Oxidation-Reduction Potential Probe Calibration Check

Calibration Solution	Reading 1 (mV)	Reading 2 (mV)	Temp. (°C)
100 mL pH 4 buffer + 1.0g Quinhydrone	295	294	18.5
100 mL pH 7 buffer + 1.0g Quinhydrone	121	120	18.5

^{*}Silver/Siver Chloride Reference Electrode used

Field Sample Oxidation-Reduction Potential Determinations

Laboratory Number	Temp. (°C)	Reading 1 (mV)	Reading 2 (mV)	Oxidation- Reduction Potential (ORP) in mV
535380	17.0	161	161	161
535384	17.0	169	165	167
535386	17.0	194	191	193
535392	17.0	184	183	184
535392DP	17.0	183	183	183
535394	17.0	187	185	186

STL Burlington Colchester, Vermont

Sample Data Summary Package

SDG: GCW009



September 16, 2003

Ms. Jennifer Kindred EA Engineering 12011 Bellevue-Redmond Rd. Suite 200 Bellevue, WA 98005

Re: Laboratory Project No. 23046

Case No. 23046; SDG: GCW009

Dear Ms. Kindred:

Enclosed are the analytical results of samples received intact by Severn Trent Laboratories on July 26, 2003. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	Client Sample ID	Sample <u>Date</u>	Sample <u>Matrix</u>
	Received: 07/26/03	ETR No: 95007	
535945 535946	BLACSTSFW04 BLACSTSFW04F	07/22/03 07/22/03	Water Water
535947	BLUEPDSFW40	07/20/03	Water
535948	BLUEPDSFW40F	07/20/03	Water
535949	BLUEPDSFW18	07/22/03	Water
535950	BLUEPDSFW18F	07/22/03	Water
535951	BLUEPDSFW16	07/22/03	Water
535952	BLUEPDSFW16F	07/22/03	Water
535953	BLACPDSFW43	07/23/03	Water
535954	BLACPDSFW43F	07/23/03	Water
535955	BLACSTPWP03	07/22/03	Water
535956	BLACSTPWP03F	07/22/03	Water
535957	BLACSTPWR02	07/22/03	Water
535958	BLACSTPWR02F	07/22/03	Water
535959	BLACSTPWP01	07/23/03	Water
535960	BLACSTPWP01F	07/23/03	Water
535961	BLACSTPWR03	07/22/03	Water
535962	BLACSTPWR03F	07/22/03	Water
535963	BLACADSFW11	07/23/03	Water
535964	BLACADSFW11F	07/23/03	Water

Due to reporting software limitations, sample identifications may have been truncated. In most instances only punctuation was removed.

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal.

The analysis for arsenic speciation was performed by STL's North Canton facility, as approved by EA Engineering. STL North Canton assigned "Lot" numbers as samples were received. Though laboratory numbers may differ, the client's sample identifications were maintained. The results for this delivery group including a case narrative prepared by the North Canton laboratory are attached to the extended data package.

There were no exceptions to quality control criteria noted during the analysis of samples in this delivery group. If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page 0.411.

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. The release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely,

Michael F. Wheeler, Ph.D.

Laboratory Director

Enclosure MFW/jtd/jmm

TRENT STL SEVERN TRENT LABORATORIES, INC.

STL Burlington208 South Park Drive, Suite 1
Colchester, VT 05446 Tel 802 655 1203

2 of 3

CHAIN OF CUSTODY RECORD

				·						—		_		_	_	_	_					
Lab Use Only Due Date:	Temp. of coolers when received (C*):	Custodio Seal N / V		Screened For Radioactivity			l ah/Samnle ID (I ah i lea Oak)	(fill) declaration from													Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schooling	STL cannot accept verbal changes. Please Fax written changes to (802) 655-1248
\$ \frac{1}{2}	T/20	وأسو	25:00	30. S-3	1/35 New 100/201	Police Tu	_	XXX	X X	×	X X	×××	×	1	×	×	×		Remarks		Client's delivery of samples constitutes acceptance of terms and conditions contained in the Price Schoolule	Sudge 0 - 0il
ANALYSIS REQUESTED			_	ection S	2002 2010		-	XXX	X X X	×	X X X	Х Х .Х			×		×		Time	Time	Time	SL or other
					5	No/Type of Containers ²	A/G 250 P/O 1 Lt. ml	7 - 2	-	212		1 6	-	_	<u></u> -	-	9		Date	Date	Date	O
Invoice to:	Address:	Contact:	Phone:		's fignature (Bunder)		VOA	H <	01	8	ما	43	33	70-	10	63		1	Received by: (Signature	Received by: (Signature	Received by: (Signature	L - Liquid A - Air bag r 250 ml - Glass wide mouth
Company:		Cou	€ 		Sampler's	A~4)	ample(s)	SFW-(AD-SFW-40	J- MJ5	SFW-	5FW-	5T- PWP. 03	PWR-	PWP-01	PWR-	SFW-1		Time	Time	Time	S - Soil Or Glass 1 Lite
ي	2 Swite		8			We Creek Workshed	Identifying Marks of Sample(s)	BLAC-57-5FW-04			BUE-PD-SFW-16	BLAC- 97-5FW-43	C-5T-	RAC-5T- PWR-02	BLAC-ST-	BLAC-ST-PWR	BURC- AD-		Date	Date	Date	W Water S Soil A/G - Amber / Or Glass 1 Liter
Report to: , Sompany: EA En a\ neg Y\ 10	Address: 12011 Bel Red Rd Sellewe WA 1800	1	Phone: 725-451-1400 Fax: 425-451-7800		Sampler's Name Don Morman	Proj. No. 1 b Project Name	Aatrix' Date Time C G I Identif	λ	1) The 1600 X BLUE.	X	×	X	W 7/22/17/5 X BLAC-	×	×	1730 X	300	gr = 03	Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)	'Matrix WW - Wastewater y 'Container VOA - 40 ml vial / A

(3)



Geotechnical Analysis Sample Data Summary Package

Sample Report Summary

Client Sample No.

BLACSTSFW04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535945

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
 QSOA	Redox Potential D1498	08/27/03		mV	1	10	147	
						: :		
							:	
	,							
							:	

Printed on: 09/08/03 04:03 PM

Sample Report Summary

Client Sample No.

BLUEPDSFW40

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535947

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/27/03		m∨	1	10	267	
	·							

Printed on: 09/08/03 04:04 PM

Sample Report Summary

Client Sample No.

BLUEPDSFW18

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535949

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/27/03		mV	1	10	294	
						}		
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	ļ						:	
i	}	1						

Printed on: 09/08/03 04:05 PM

Sample Report Summary

Client Sample No.

BLUEPDSFW16

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535951

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/27/03		mV	1	10	298	
				:				

Printed on: 09/08/03 04:05 PM

Sample Report Summary

Client Sample No.

BLACPDSFW43

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535953

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/27/03		mV	1	10	228	
							:	
							-	

Printed on: 09/08/03 04:06 PM

Sample Report Summary

Client Sample No.

BLACADSFW11

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535963

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
QSOA	Redox Potential D1498	08/27/03		mV	1	10	232	
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			•					

Printed on: 09/08/03 04:07 PM

ASTM Method D1498: Standard Practice for Oxidation-Reduction Potential of Water

Client Code:	EASEAT	Analysis Date:	8/27/2003
ETR:	95007	Analysis Time:	14:40
SDG:	GCW009	Analyst: -	DJP

Oxidation-Reduction Potential Probe Calibration Check

Calibration Solution	Reading 1 (mV)	Reading 2 (mV)	Temp. (°C)
100 mL pH 4 buffer + 1.0g Quinhydrone	294	292	21.0
100 mL pH 7 buffer + 1.0g Quinhydrone	122	118	21.0

^{*}Silver/Siver Chloride Reference Electrode used

Field Sample Oxidation-Reduction Potential Determinations

Laboratory Number	Temp. (°C)	Reading 1 (mV)	Reading 2 (mV)	Oxidation- Reduction Potential (ORP) in mV
535945	23.0	149	145	147
535947	23.0	264	270	267
535949	23.0	291	297	294
535951	23.0	297	298	298
535953	23.0	231	225	228
535963	23.0	232	232	232



Sample Data Summary Package For Wet Chemistry

Sample Report Summary

Client Sample No.

BLACSTSFW04

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535945

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

	Analytical	Analytical				_	_
Parameter	Run Date	Batch	Units	DF	RL	 	Qual.
Conductivity (umhos/cm)	08/12/03		umhos/cm	1	0.000	113	
Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	1	2.0	104	
Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	• 1	1.0	59.5	
Total Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	59.5	
Sulfate	08/07/03	BLKSU0807A	mg/L	1	5.0	6.8	
Corrosivity by pH	07/28/03		pH Units	1	0.1	8.4	
					,		
	Total Hardness as CaCO3 Hydroxide Alkalinity Carbonate Alkalinity Bicarbonate Alkalinity Total Alkalinity Sulfate	Parameter Run Date Conductivity (umhos/cm) 08/12/03 Total Hardness as CaCO3 08/11/03 Hydroxide Alkalinity 07/30/03 Carbonate Alkalinity 07/30/03 Bicarbonate Alkalinity 07/30/03 Total Alkalinity 07/30/03 Sulfate 08/07/03	Parameter Run Date Batch Conductivity (umhos/cm) 08/12/03 Total Hardness as CaCO3 08/11/03 BLKHA0811A Hydroxide Alkalinity 07/30/03 BLKAL0730A Carbonate Alkalinity 07/30/03 BLKAL0730A Bicarbonate Alkalinity 07/30/03 BLKAL0730A Total Alkalinity 07/30/03 BLKAL0730A Sulfate 08/07/03 BLKSU0807A	Parameter Run Date Batch Units Conductivity (umhos/cm) 08/12/03 umhos/cm Total Hardness as CaCO3 08/11/03 BLKHA0811A mg/L Hydroxide Alkalinity 07/30/03 BLKAL0730A mg/L Carbonate Alkalinity 07/30/03 BLKAL0730A mg/L Bicarbonate Alkalinity 07/30/03 BLKAL0730A mg/L Total Alkalinity 07/30/03 BLKAL0730A mg/L Sulfate 08/07/03 BLKSU0807A mg/L	Parameter Run Date Batch Units DF Conductivity (umhos/cm) 08/12/03 umhos/cm 1 Total Hardness as CaCO3 08/11/03 BLKHA0811A mg/L 1 Hydroxide Alkalinity 07/30/03 BLKAL0730A mg/L 1 Carbonate Alkalinity 07/30/03 BLKAL0730A mg/L 1 Bicarbonate Alkalinity 07/30/03 BLKAL0730A mg/L 1 Total Alkalinity 07/30/03 BLKAL0730A mg/L 1 Sulfate 08/07/03 BLKSU0807A mg/L 1	Parameter Run Date Batch Units DF RL Conductivity (umhos/cm) 08/12/03 umhos/cm 1 0.000 Total Hardness as CaCO3 08/11/03 BLKHA0811A mg/L 1 2.0 Hydroxide Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 Carbonate Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 Bicarbonate Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 Total Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 Sulfate 08/07/03 BLKSU0807A mg/L 1 5.0	Parameter Run Date Batch Units DF RL Conc. Conductivity (umhos/cm) 08/12/03 umhos/cm 1 0.000 113 Total Hardness as CaCO3 08/11/03 BLKHA0811A mg/L 1 2.0 104 Hydroxide Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 1.0 Carbonate Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 59.5 Total Alkalinity 07/30/03 BLKAL0730A mg/L 1 1.0 59.5 Sulfate 08/07/03 BLKSU0807A mg/L 1 5.0 6.8

Sample Report Summary

Client Sample No.

BLUEPDSFW40

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535947

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

		Analytical	Analytical					
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	08/12/03		umhos/cm	1	0.000	163	
130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	1	2.0	148	
310.1	Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	6.8	
310.1	Total Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	6.8	
375.4	Sulfate	08/07/03	BLKSU0807A	mg/L	5	25.0	63.3	
9040B	Corrosivity by pH	07/28/03		pH Units	1	0.1	5.2	
						!		
							:	

Sample Report Summary

Client Sample No.

BLUEPDSFW18

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535949

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	08/12/03		umhos/cm	1	0.000	171	
130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	1	2.0	228	
310.1	Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	5.4	
310.1	Total Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	5.4	
375.4	Sulfate	08/07/03	BLKSU0807A	mg/L	5	25.0	65.9	
9040B	Corrosivity by pH	07/28/03		pH Units	1	0.1	5.2	
						ļ		

Sample Report Summary

Client Sample No.

BLUEPDSFW16

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535951

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

		Analytical	Analytical					
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	08/12/03		umhos/cm	1	0.000	406	
130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	1	2.0	284	
310.1	Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L.	1	1.0	1.9	
310.1	Total Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.9	
375.4	Sulfate	08/07/03	BLKSU0807A	mg/L	10	50.0	193	
9040B	Corrosivity by pH	07/28/03		pH Units	1	0.1	4.8	
						-		
							}	

Sample Report Summary

Client Sample No.

BLACPDSFW43

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535953

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

		Analytical	Analytical			I		
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	08/12/03		umhos/cm	1	0.000	170	
130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	1	2.0	124	
160.1	Total Dissolved Solids	07/30/03	BLKDS0730B	mg/L	1	5.0	105	
160.2	Total Suspended Solids	07/28/03	BLKSS0728E	mg/L	1	0.53	1.8	
160.4	Volatile Suspended Solids	07/28/03		mg/L	1	5.0	5.0	υ
310.1	Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	20.2	
310.1	Total Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	20.2	
375.4	Sulfate	08/07/03	BLKSU0807A	mg/L	5	25.0	60.1	
9040B	Corrosivity by pH	07/28/03		pH Units	1	0.1	6.1	
	.1	L		<u> </u>				L

Sample Report Summary

Client Sample No.

BLACADSFW11

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Lab Sample ID: 535963

Matrix: WATER

Client: EASEAT

Date Received: 07/26/03

% Solids:

		Analytical	Analytical					
Method	Parameter	Run Date	Batch	Units	DF	RL	Conc.	Qual.
120.1	Conductivity (umhos/cm)	08/12/03		umhos/cm	1	0.000	179	
130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	1	2.0	128	
160.1	Total Dissolved Solids	07/30/03	BLKDS0730B	mg/L	1	5.0	209	
160.2	Total Suspended Solids	07/28/03	BLKSS0728E	mg/L	1	0.50	21.7	
160.4	Volatile Suspended Solids	07/28/03		mg/L	1	5.0	5.0	υ
310.1	Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	1.0	U
310.1	Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	35.4	
310.1	Total Alkalinity	07/30/03	BLKAL0730A	mg/L	1	1.0	35.4	
375.4	Sulfate	08/07/03	BLKSU0807A	mg/L	5	25.0	67.4	
9040B	Corrosivity by pH	07/28/03		pH Units	1	0.1	6.6	
	. '							

Method Blank Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Conc.	Units	Qual.	DF	RL	Analytical Run Date	Analytical Batch
BLKAL0730A	310.1	Hydroxide Alkalinity	1.0	mg/L	U	1	1.0	07/30/03	BLKAL0730A
BLKAL0730A	310.1	Carbonate Alkalinity	1.0	mg/L	U	1	1.0	07/30/03	BLKAL0730A
BLKAL0730A	310.1	Bicarbonate Alkalinity	1.0	mg/L	U	1	1.0	07/30/03	BLKAL0730A
BLKAL0730A	310.1	Total Alkalinity	1.0	mg/L	U	1	1.0	07/30/03	BLKAL0730A
BLKDS0730B	160.1	Total Dissolved Solids	5.0	mg/L	υ	1	5.0	07/30/03	BLKDS0730B
BLKHA0811A	130.2	Total Hardness as CaCO3	2.0	mg/L	U	1	2.0	08/11/03	BLKHA0811A
BLKSS0728E	160.2	Total Suspended Solids	0.50	mg/L	υ	1	0.50	07/28/03	BLKSS0728E
BLKSU0807A	375.4	Sulfate	5.0	mg/L	U	1	5.0	08/07/03	BLKSU0807A

Laboratory Control Sample Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCS Conc.	True Value	% Recovery*
LCS DS0730B	160.1	Total Dissolved Solids	07/30/03	BLKDS0730B	mg/L	50.0	50.0	100.0
LCSAL0730A	310.1	Hydroxide Alkalinity	07/30/03	BLKAL0730A	mg/L	59.7	54.7000	109.2
LCSAL0730A	310.1	Carbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	59.7	54.7000	109.2
LCSAL0730A	310.1	Bicarbonate Alkalinity	07/30/03	BLKAL0730A	mg/L	59.7	54.7000	109.2
LCSAL0730A	310.1	Total Alkalinity	07/30/03	BLKAL0730A	mg/L	59.7	54.7000	109.2
LCSCD0812A	120.1	Conductivity (umhos/cm)	08/12/03		umhos/c	1000	997.0000	100.3
LCSHA0811A	130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	124	121.0000	102.5
LCSPH0728A	9040B	Corrosivity by pH	07/28/03		pH Units	6.0	6.0000	100.5
LCSSS0728E	160.2	Total Suspended Solids	07/28/03	BLKSS0728E	mg/L	500	500	100.0
LCSSU0807A	375.4	Sulfate	08/07/03	BLKSU0807A	mg/L	9.6	10.0	96.0

^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.

Laboratory Control Sample Duplicate Report Summary

Lab Name: STL BURLINGTON

Contract: LSO1024805

SDG No.: GCW009

Lab Code: STLVT

Case No.: 23046

Matrix: WATER

Client: EASEAT

% Solids:

Lab Sample ID	Method	Parameter	Analytical Run Date	Analytical Batch	Units	LCSD Conc.	True Value	% Recovery*	RPD**
LCSDHA0811A	130.2	Total Hardness as CaCO3	08/11/03	BLKHA0811A	mg/L	124	121.0000	102.5	0
LCSDPH0728A	9040B	Corrosivity by pH	07/28/03		pH Units	6.0	6.0000	100.3	0
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^{*} Control Limit for Percent Recovery is 80-120%, unless otherwise specified.
** Control Limit for RPD is +/- 20%, unless otherwise specified.



Sample Data Summary Package For Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

	TL BURLINGTON	Contract: <u>23046</u>	
ab Code: <u>ST</u>	Case No.: 23046	SAS No.:	SDG No.: GCW009
OW No.: II	LM04.1		
-	EPA Sample No.	Lab Sample	ID.
	BLACADSFW11	535963	
	BLACADSFW11F	535964	
	BLACPDSFW43	535953	
	BLACPDSFW43F	535954	
	BLACSTPWP01	535959	
	BLACSTPWP01F	535960	
	BLACSTPWP03	535955	
	BLACSTPWP03F	535956	
	BLACSTPWR02	535957	
	BLACSTPWR02F	535958	
	BLACSTPWR03	535961	
	BLACSTPWR03F	535962	
	BLACSTSFW04	535945	
	BLACSTSFW04F	535946	
	BLUEPDSFW16	535951	
	BLUEPDSFW16F	535952	
	BLUEPDSFW18	535949	
	BLUEPDSFW18F	535950	
	BLUEPDSFW40	535947	
	BLUEPDSFW40F	535948	
Were ICP i	nterelement corrections appl:	ied?	Yes/No YES
Were ICP ba	ackground corrections applied	d?	Yes/No YES
If yes	s-were raw data generated bet	fore	
appli	cation of background correct	ions?	Yes/No NO
omments:			
J.IIIII E11 C3			
I certify t contract, k above. Rel computer-re	that this data package is in both technically and for comp lease of the data contained i eadable data submitted on dis the Manager's designee, as v	pleteness, for other th in this hardcopy data p skette has been authori	an the conditions detailed ackage and in the zed by the Laboratory
I certify t contract, k above. Rel computer-re	ooth technically and for comp lease of the data contained i eadable data submitted on dis	pleteness, for other th in this hardcopy data p skette has been authori	an the conditions detailed ackage and in the zed by the Laboratory

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACADSI	:W11	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 2304	6 SAS No.:	SDG No.: GCW009
Matrix (soil/water): WATER	Lab Sample ID:	535963
Level (low/med): LOW	Date Received:	7/26/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	23.6	U		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	4.8	שן		P
7440-39-3	Barium	30.0	B		P
7440-41-7	Beryllium	0.20	טן		P
7440-43-9	Cadmium	0.60	Įΰ		P
7440-70-2	Calcium	7460			P
7440-47-3	Chromium	1.4	טן		P
7440-48-4	Cobalt	11.8	В		P
7440-50-8	Copper	2.4	ע		P
7439-89-6	Iron	26000		1	P
7439-92-1	Lead	1.3	טן	1	P
7439-95-4	Magnesium	13000		1	P
7439-96-5	Manganese	2430		}	P
7439-97-6	Mercury	0.14	В		cv
7440-02-0	Nickel	44.8			P
7440-09-7	Potassium	1440	В		P
7782-49-2	Selenium	3.4	שן	<u> </u>	P
7440-22-4	Silver	2.2	ען		P
7440-23-5	Sodium	2740	B		P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	108			P
57-12-5	Cyanide	10.0	שן		AS

Color Befo	re: colorless	Clarity Before:	clear	Texture:	
Color Afte	r: colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACA	DSFW1	1F	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCW009
Matrix (soil/water): WATER	Lab Sample ID:	535964
Level (low/med): LOW	Date Received:	7/26/2003
% Solids: 0.0		

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	23.6	U		P
7440-36-0	Antimony	4.7	ש		P
7440-38-2	Arsenic	4.8	ש		P
7440-39-3	Barium	27.6	В		P
7440-41-7	Beryllium	0.20	ט		P
7440-43-9	Cadmium	0.60	טן		P
7440-70-2	Calcium	7390	1		P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	12.0	В		P
7440-50-8	Copper	2.4	שן	<u> </u>	P
7439-89-6	Iron	13100			P
7439-92-1	Lead	1.8	В		P
7439-95-4	Magnesium	12900			P
7439-96-5	Manganese	2380			P
7439-97-6	Mercury	0.21	1		CV
7440-02-0	Nickel	43.2		l	P
7440-09-7	Potassium	1460	В		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	U		P
7440-23-5	Sodium	2820	B		P
7440-28-0	Thallium	5.7	ש		P
7440-62-2	Vanadium	2.0	שן	<u> </u>	P
7440-66-6	Zinc	89.3			P

Color E	Before:	colorless	Clarity Before:	clear	Texture:	
Color A	After:	colorless	Clarity After:	clear	Artifacts:	
Comment	ts:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACPDSFW	743	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW009
Matrix (so:	il/water): WATER	Lab Sample ID:	535953
Level (low	/med): LOW	Date Received:	7/26/2003
% Solids:	0.0		

	3 3	Q t t i	Тс	_	М
CAS No.	Analyte	Concentration		Q	^M
7429-90-5	Aluminum	23.6	U		P
7440-36-0	Antimony	4.7	טן		P
7440-38-2	Arsenic	4.8	U		P
7440-39-3	Barium	5.9	מ		P
7440-41-7	Beryllium	0.20	ש		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	7420			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	שן	Ì	P
7440-50-8	Copper	2.4	שן		P
7439-89-6	Iron	231			P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	13800		<u> </u>	P
7439-96-5	Manganese	101		l	P
7439-97-6	Mercury	0.10	ט		cv
7440-02-0	Nickel	2.1	שן		P
7440-09-7	Potassium	1440	В		P
7782-49-2	Selenium	3.4	מן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	2810	B		P
7440-28-0	Thallium	5.7	ט	1	P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	3.7	B		P
57-12-5	Cyanide	10.0	U		AS

Color I	Before:	colorless	Clarity Before:	clear	Texture:	
Color A	After:	colorless	Clarity After:	clear	Artifacts: _	
Commen	ts:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

_		
	BLACPDSFW43F	

Lab Name:	STL BURLIN	GTON	Contract: 23046	
Lab Code:	STLVT	Case No.: 23046	SAS No.:	SDG No.: GCW009
Matrix (so	il/water):	WATER	Lab Sample ID:	535954

Date Received: 7/26/2003

% Solids: 0.0

Level (low/med): LOW

	1		1	ľ	Ті
CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.6	U		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	4.8	שן		P
7440-39-3	Barium	5.9	שן		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	7500			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	טן		P
7440-50-8	Copper	2.6	B		P
7439-89-6	Iron	53.0	B		P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	13900			P
7439-96-5	Manganese	188			P
7439-97-6	Mercury	0.20	1		CV
7440-02-0	Nickel	2.1	ןט		P
7440-09-7	Potassium	1460	В		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	מן		P
7440-23-5	Sodium	2800	В		P
7440-28-0	Thallium	5.7	שן		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	4.9	В	1	P

Color Befor	e: colorless	Clarity Before:	clear	Texture:	
Color After	: colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BI	ACSTE	WP0	1	

						BIACSIEWEUI
Lab Name: STL	BURLINGTON	Contra	act: 23046			
Lab Code: STLV	T Case No.	: 23046 SAS	S No.:	_ SDO	3 No.:	GCW009
Matrix (soil/wa	ter): WATER		Lab Sample II	: 535	5959	
Level (low/med)			Date Received	.: <u>7/2</u>	26/2003	
% Solids: 0.0						
<u> </u>			(1)	. 1-3 - 776	7 / 7	
	Concentration	n Units (ug/L or	mg/kg dry weig	16): 00	ط/ح	_
	CAS No.	Analyte	Concentration	c ç	Q M	
	57-12-5	Cyanide	10.0	U	AS	<u>]</u>
		1 - 2		•	•	-
Color Before:	C	Clarity Before:		Text	ıre:	
COTOL DELOIE.						
Color After:		Clarity After:		Arti:	facts:	
Comments:						

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTPWP01F	

Lab Name:	STL BURLING	GTON		Contract:	23046	<u></u>		
Lab Code:	STLVT	Case No.: 2	23046	SAS No.		SDG No.:	GCW009	
Matrix (so	il/water):	WATER		Lab	Sample ID:	535960		
Level (low	/med): LO	W		Dat	ce Received:	7/26/2003		

% Solids: 0.0

Level (low/med): LOW

	1	1			T
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	36.3	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	4.8	שן		P
7440-39-3	Barium	23.3	B		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.60	טן		P
7440-70-2	Calcium	13500			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	υ		P
7440-50-8	Copper	2.4	U		P
7439-89-6	Iron	33.3	שן		P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	7540			P
7439-96-5	Manganese	2.9	В		P
7439-97-6	Mercury	0.10	שן		CV
7440-02-0	Nickel	2.1	שן		P
7440-09-7	Potassium	1560	B		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	3420	В		P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	3.0	B		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
				

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

Lab Name: STL BURLINGTON Contract: 23046

EPA SAMPLE NO.

BI	LACSTPWP03	

atrix (soil/water): WATER		Lab Sample ID:	535955	<u> </u>
evel (low/med):	LOW		Date Received:	7/26/2	2003
Solids: 0.0					
	Concentrati	on Units (ug/L or	mg/kg dry weight	:): UG/L	
			T		
	CAS No.	Analyte	Concentration	C Q	М
	57-12-5	Cyanide	10.0		AS
Color Before:		Clarity Before:		Texture:	
Color After:		Clarity After:		Artifact	cs:
		-			
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTPWP03F	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW009
Matrix (so	il/water): WATER	Lab Sample ID:	535956
Level (low	/med): LOW	Date Received:	7/26/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	23.6	U		P
7440-36-0	Antimony	4.7	טן		P
7440-38-2	Arsenic	4.8	טן		P
7440-39-3	Barium	18.8	B		P
7440-41-7	Beryllium	0.20	ען	l	P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	11800	1		P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	שן		P
7440-50-8	Copper	2.4	מן		P
7439-89-6	Iron	33.3	טן	<u> </u>	P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	7000	<u> </u>	<u> </u>	P
7439-96-5	Manganese	2.8	В		P
7439-97-6	Mercury	0.10	טן	l	CV
7440-02-0	Nickel	2.1	שן	l	P
7440-09-7	Potassium	1380	В	<u> </u>	P
7782-49-2	Selenium	3.4	U		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	2750	B		P
7440-28-0	Thallium	5.7	ען		P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	2.9	B		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:	· · · · · · · · · · · · · · · · · · ·			

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

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	DI	30	STP	WD C	2	
	DT	~~	SIF	MRU	, _	

Lab Name:	STL BURL	INGTON	Contra	act: 23046		
Lab Code:	STLVT	Case No.:	23046 SAS	No.:	SDG No.: GCW009	
Matrix (so	il/water)	: WATER		Lab Sample II	: 535957	
Level (low	/med):	LOW		Date Received	: 7/26/2003	
% Solids:	0.0					
		Concentration	Units (ug/L or	mg/kg dry weigh	at): UG/L	
		CAS No.	Analyte	Concentration	C Q M	
		57-12-5	Cyanide	10.0	U AS	
Color Bef	fore:	C1	arity Before:		Texture:	
Color Aft	ter:	Cl	arity After:		Artifacts:	
Comments:	:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

В	LACSTPWR02F	

Lab Name:	STL BURLING	TON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.	<u> </u>	SDG No.:	GCW009
Matrix (so	il/water):	WATER		Lal	Sample ID:	535958	
Level (low,	/med): <u>LOV</u>	₹		Da	ce Received:	7/26/2003	

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	23.6	Ū		P
7440-36-0	Antimony	4.7	ען		P
7440-38-2	Arsenic	4.8	טן	1	P
7440-39-3	Barium	15.5	В		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.60	ט		P
7440-70-2	Calcium	11400			P
7440-47-3	Chromium	1.4	טן		P
7440-48-4	Cobalt	2.0	טן	l	P
7440-50-8	Copper	2.4	טן	1	P
7439-89-6	Iron	33.3	ען]	P
7439-92-1	Lead	1.3	Ū]	P
7439-95-4	Magnesium	6490	1		P
7439-96-5	Manganese	0.70	ט		P
7439-97-6	Mercury	0.12	В		CV
7440-02-0	Nickel	2.1	U		P
7440-09-7	Potassium	1300	B		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	2580	В		P
7440-28-0	Thallium	5.7	ט		P
7440-62-2	Vanadium	2.0	ָּט		P
7440-66-6	Zinc	1.9	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:		1000		

USEPA - CLP -1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTPWR03	

b Name:	STL BURL	INGTON	Contr	eact: 23046			
b Code:	STLVT	. Case No	.: <u>23046</u> SA	AS No.:	_ s	DG No.:	GCW009
trix (so	oil/water)	: WATER		Lab Sample II): <u>5</u>	35961	
evel (low	v/med):	LOW		Date Received	1: <u>7</u>	/26/200	3
Solids:	0.0						
		Concentration	on Units (ug/L o	r mg/kg dry weig	ht):	UG/L	
							 -
		CAS No.	Analyte	Concentration	C	Q M	
		57-12-5	Cyanide	10.0	υ	AS	<u> </u>
					_		
Color Be	efore:		Clarity Before:		Tex	ture:	
			Clarity After:		Art	ifacts:	
Color Af	fter:						
Color Aí	fter:		-				
Color Af							

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTPWRO	3F

Lab Name:	STL BURLING	GTON	C	ontract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.	<u> </u>	SDG No.:	GCW009
Matrix (so	il/water):	WATER		Lal	o Sample ID:	535962	

% Solids: 0.0

Level (low/med): LOW

Concentration Units (ug/L or mg/kg dry weight): UG/L

Date Received: 7/26/2003

	1		T		
CAS No.	Analyte	Concentration	C	Ω	M
7429-90-5	Aluminum	23.6	ט		P
7440-36-0	Antimony	4.7	שן	<u> </u>	P
7440-38-2	Arsenic	4.8	טן		P
7440-39-3	Barium	13.6	В		P
7440-41-7	Beryllium	0.20	ט		P
7440-43-9	Cadmium	0.60	טן		P
7440-70-2	Calcium	11300			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	שן		P
7440-50-8	Copper	2.4	שן		P
7439-89-6	Iron	33.3	שן		P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	6510			P
7439-96-5	Manganese	0.71	В	ļ	P
7439-97-6	Mercury	0.10	שן		cv
7440-02-0	Nickel	2.1	שן		P
7440-09-7	Potassium	1210	В		P
7782-49-2	Selenium	3.4	מן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	2560	В		P
7440-28-0	Thallium	5.7	טן	1	P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	1.4	B	1	P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
-				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

_			
	BLACSTSFV	704	

Lab Name:	STL BURI	LINGTON	Contract:	23046		
Lab Code:	STLVT	Case No.: 23046	SAS No.	:	SDG No.:	GCW009

Matrix (soil/water): WATER Lab Sample ID: 535945

Level (low/med): LOW Date Received: 7/26/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	59.0	B		 P
7440-36-0	Antimony	4.7	Įΰ	<u> </u>	
7440-38-2	Arsenic	4.8	Ū	1	P
7440-39-3	Barium	15.1	B	<u>.</u> [P
7440-41-7	Beryllium	0.30	В	İ	P
7440-43-9	Cadmium	0.60	שׁ		P
7440-70-2	Calcium	11900	Ī		P
7440-47-3	Chromium	1.4	U	<u> </u>	P
7440-48-4	Cobalt	2.0	Ū		P
7440-50-8	Copper	2.4	שן		P
7439-89-6	Iron	33.3	U		P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	6880	1		P
7439-96-5	Manganese	4.2	В]	P
7439-97-6	Mercury	0.11	B	[CV
7440-02-0	Nickel	2.1	שן		P
7440-09-7	Potassium	1260	B		P
7782-49-2	Selenium	3.4	ש		P
7440-22-4	Silver	2.2	U		P
7440-23-5	Sodium	2620	В		P
7440-28-0	Thallium	5.7	U	1	P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	2.8	В		P
57-12-5	Cyanide	10.0	שן		AS

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:	- A			
-				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLACSTSFW04F	

Lab Name:	STL BURLING	GTON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.:		SDG No.:	GCW009
Matrix (so	il/water):	WATER		Lak	Sample ID:	535946	

Date Received: 7/26/2003

% Solids: 0.0

Level (low/med): LOW

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	24.9	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	4.8	שן		P
7440-39-3	Barium	14.6	B		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	11700			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	2.0	טן		P
7440-50-8	Copper	2.4	שן		P
7439-89-6	Iron	33.3	שן		₽
7439-92-1	Lead	1.3	ַע		P
7439-95-4	Magnesium	6780			P
7439-96-5	Manganese	2.8	B		P
7439-97-6	Mercury	0.10	שן		cv
7440-02-0	Nickel	2.1	טן		P
7440-09-7	Potassium	1200	B		P
7782-49-2	Selenium	3.4	טן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	2600	B		P
7440-28-0	Thallium	5.7	טן		P
7440-62-2	Vanadium	2.0	טן		P
7440-66-6	Zinc	1.8	В		P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				
-				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUEPDSI	FW16	

Lab Name:	STL BURLINGT	ON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.	•	SDG No.:	GCW009

Matrix (soil/water): WATER Lab Sample ID: 535951

Level (low/med): LOW Date Received: 7/26/2003

% Solids: 0.0

		T	1		
CAS No.	Analyte	Concentration	С	Ω	M
7429-90-5	Aluminum	83.5	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	4.8	שן		P
7440-39-3	Barium	19.9	B		P
7440-41-7	Beryllium	0.20	שן		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	27400			P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	30.8	В		P
7440-50-8	Copper	4.3	В	1	P
7439-89-6	Iron	1920		<u> </u>	P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	25600			P
7439-96-5	Manganese	4960			P
7439-97-6	Mercury	0.20	В		CV
7440-02-0	Nickel	129			P
7440-09-7	Potassium	1850	В		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	5680	1		P
7440-28-0	Thallium	5.7	ַ		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	192	1		P
57-12-5	Cyanide	10.0	ען		AS

Color Before	e: colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUEPDSFW16F	
PLOEFDSEMICE	

Lab Name:	STL BURLINGTON	Contract: 23046	
Lab Code:	STLVT Case No.: 23046	SAS No.:	SDG No.: GCW009
Matrix (so	il/water): WATER	Lab Sample ID:	535952
Level (low	/med): LOW	Date Received:	7/26/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	68.2	В		 P
	1	1 4.7	IU	<u> </u> 	P
7440-36-0	Antimony		1	<u> </u>	-
7440-38-2	Arsenic	4.8	ע		P
7440-39-3	Barium	19.6	В		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	27300			P
7440-47-3	Chromium	1.4	U		P
7440-48-4	Cobalt	30.6	B		P
7440-50-8	Copper	2.9	В		P
7439-89-6	Iron	1310			P
7439-92-1	Lead	1.3	טן		P
7439-95-4	Magnesium	25500			P
7439-96-5	Manganese	4930	1		P
7439-97-6	Mercury	0.27			CV
7440-02-0	Nickel	126			P
7440-09-7	Potassium	1860	В		P
7782-49-2	Selenium	3.4	B		P
7440-22-4	Silver	2.2	ע		P
7440-23-5	Sodium	5780			P
7440-28-0	Thallium	5.7	שׁ		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	192			P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					
-		4			

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

	 -
BLUEPDSFW18	

							210212021120	
Lab Name:	STL BURLINGT	ON		Contract:	23046			
Lab Code:	STLVT	Case No.:	23046	SAS No.	•	SDG No.:	GCW009	

Lab Sample ID: 535949

Date Received: 7/26/2003

% Solids: 0.0

Matrix (soil/water): WATER

Level (low/med): LOW

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	225			P
7440-36-0	Antimony	4.7	טן		P
7440-38-2	Arsenic	4.8	שן	1	P
7440-39-3	Barium	9.4	B		P
7440-41-7	Beryllium	0.20	Įυ		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	4470	B		P
7440-47-3	Chromium	1.4	שן	Ī	P
7440-48-4	Cobalt	35.3	В	l	P
7440-50-8	Copper	3.4	В		P
7439-89-6	Iron	17400	1		P
7439-92-1	Lead	1.3	טן	[P
7439-95-4	Magnesium	11400			P
7439-96-5	Manganese	4980	1		P
7439-97-6	Mercury	0.30	1		CV
7440-02-0	Nickel	112		1	P
7440-09-7	Potassium	1340	В		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	שׁן	[P
7440-23-5	Sodium	3080	B	[P
7440-28-0	Thallium	5.7	טן		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	210			P
57-12-5	Cyanide	10.0	U	1	AS

Color Befo	re: colorless	Clarity Before:	clear	Texture:
Color Afte	r: colorless	Clarity After:	clear	Artifacts:
Comments:				

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLU	EPDSFW18F	

Lab Name:	STL BURLING	TON		Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.	:	SDG No.:	GCW009
Matrix (so	il/water):	WATER		Lal	b Sample ID:	535950	

Date Received: 7/26/2003

% Solids: 0.0

Level (low/med): LOW

		·		I	
CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	87.2	В		P
7440-36-0	Antimony	4.7	שן		P
7440-38-2	Arsenic	4.8	שן		P
7440-39-3	Barium	9.0	В		P
7440-41-7	Beryllium	0.20	ן ט		P
7440-43-9	Cadmium	0.71	B		P
7440-70-2	Calcium	4370	В		P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	35.0	B		P
7440-50-8	Copper	2.4	שן		P
7439-89-6	Iron	6740			P
7439-92-1	Lead	1.4	B		P
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	4860			P
7439-97-6	Mercury	0.24			CV
7440-02-0	Nickel	108		1	P
7440-09-7	Potassium	1310	В		P
7782-49-2	Selenium	3.4	שן		P
7440-22-4	Silver	2.2	ען	1	P
7440-23-5	Sodium	3270	В		P
7440-28-0	Thallium	5.7	ען		P
7440-62-2	Vanadium	2.0	ן ט		P
7440-66-6	Zinc	204			P

Color Before	e: colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	clear	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUEPDSFW40	

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 230	6 SAS No.:	SDG No.: GCW009
Matrix (soil/water): WATER	Lab Sample ID:	535947
Level (low/med): LOW	Date Received:	7/26/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
 7429-90-5	Aluminum	614	╁╌	<u></u>	 P
7440-36-0	Antimony	4.7	<u>iu</u>	Ì	P
7440-38-2	Arsenic	4.8	<u>י</u>	<u>.</u> I	P
7440-39-3	Barium	9.7	B	<u>.</u> 	P
7440-41-7	Beryllium	0.20	ju	1	P
7440-43-9	Cadmium	0.60	<u>י</u> י		P
7440-70-2	Calcium	4350	İВ	<u> </u>	P
7440-47-3	Chromium	5.0	İВ	l	P
7440-48-4	Cobalt	34.0	В	l	P
7440-50-8	Copper	8.7	В	<u> </u>	P
7439-89-6	Iron	37500	Ī	İ	P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	11000		[P
7439-96-5	Manganese	4750			P
7439-97-6	Mercury	0.38]		CV
7440-02-0	Nickel	108			P
7440-09-7	Potassium	1330	В		P
7782-49-2	Selenium	3.4	U		P
7440-22-4	Silver	2.2	שן	1	P
7440-23-5	Sodium	3080	В		P
7440-28-0	Thallium	5.7	ש		P
7440-62-2	Vanadium	2.0	ען		P
7440-66-6	Zinc	202			P
57-12-5	Cyanide	10.0	U		AS

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	colorless	Clarity After:	<u>clear</u>	Artifacts:	
Comments:					

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BLUEPDSFW40F	

Lab Name:	STL BURLINGTON	•	Contract: 23046	
Lab Code:	STLVT Cas	No.: 23046	SAS No.:	SDG No.: GCW009
Matrix (so	il/water): WATER		Lab Sample ID:	535948
Level (low,	/med): LOW	_	Date Received:	7/26/2003

% Solids: 0.0

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	77.8	В		P
7440-36-0	Antimony	4.7	ט		P
7440-38-2	Arsenic	4.8	ש		P
7440-39-3	Barium	9.3	В		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	שן		P
7440-70-2	Calcium	4400	B	[P
7440-47-3	Chromium	1.4	שן		P
7440-48-4	Cobalt	34.8	В		P
7440-50-8	Copper	2.4	שן		P
7439-89-6	Iron	7340]	P
7439-92-1	Lead	1.3	שן		P
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	4790	1		P
7439-97-6	Mercury	0.23	1		CV
7440-02-0	Nickel	106	1		P
7440-09-7	Potassium	1340	B		P
7782-49-2	Selenium	3.4	ן ט		P
7440-22-4	Silver	2.2	שן		P
7440-23-5	Sodium	3090	В		P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	2.0	שן		P
7440-66-6	Zinc	198			P

Color Before:	colorless	Clarity Before:	clear	Texture:
Color After:	colorless	Clarity After:	clear	Artifacts:
Comments: _				
_				

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibratio	n	Continuing Calibration						
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found 9	kR(1)	М	
Aluminum	26000.0	26230.00	100.9	30200.0	29630.00	98.1	29460.00	97.5	P	
Antimony	250.0	249.10	99.6	300.0	295.50	98.5	297.70	99.2	P	
Arsenic	250.0	246.40	98.6	100.0	96.40	96.4	99.72	99.7	Р	
Barium	500.0	490.30	98.1	200.0	194.70	97.4	193.60	96.8	P	
Beryllium	500.0	497.50	99.5	100.0	95.69	95.7	96.31	96.3		
Cadmium	500.0	489.00	97.8	100.0	94.45	94.4	94.64	94.6	P	
Calcium	25000.0	25290.00	101.2	30200.0	29290.00	97.0	29210.00			
Chromium	500.0	494.50	98.9	200.0	190.40	95.2	190.60			
Cobalt	500.0	488.30	97.7	200.0	191.80	95.9	193.10	96.6	P	
Copper	500.0	497.60	99.5	200.0	196.80	98.4	195.50	97.8	P	
Iron	25500.0	26210.00	102.8	30200.0	29400.00	97.4	29480.00	97.6	P	
Lead	1000.0	995.10	99.5	400.0	383.10	95.8	385.90	96.5	P	
Magnesium	25000.0	25330.00	101.3	30200.0	29130.00	96.5	29310.00	97.1	P	
Manganese	500.0	490.80	98.2	200.0	192.50	96.2	193.40	96.7	P	
Mercury	3.0	3.01	100.3	5.0	5.48	109.6	5.35	107.0	CV	
Nickel	500.0	491.80	98.4	200.0	188.20	94.1	189.60	94.8	P	
Potassium	25000.0	26500.00	106.0	30200.0	30880.00	102.3	30670.00	101.6	P	
Selenium	250.0	242.20	96.9	100.0	94.93	94.9	97.41	97.4	P	
Silver	500.0	495.20	99.0	100.0	96.59	96.6	97.68	97.7	P	
Sodium	25000.0	25120.00	100.5	30200.0	29090.00	96.3	29180.00	96.6	₽	
Thallium	250.0	242.10	96.8	100.0	98.75	98.8	98.04	98.0	P	
Vanadium	J 500.0	492.40	98.5	200.0	193.50	96.8	194.10	97.0	Р	
Zinc	500.0	495.30	99.1	200.0	193.50	96.8	194.60	97.3	Р	
Cyanide	120.0	113.10	94.2	150.0	145.09	96.7	144.62	96.4	AS	

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibratio	on		Continuing	Calibr	ation		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found 9	kR(1)	М
Aluminum				30200.0	29440.00	97.5	29540.00		
Antimony				300.0	297.20	99.1	298.60	99.5	P
Arsenic				100.0	98.70	98.7	97.19		
Barium	!			200.0	194.00	97.0	193.60	96.8	P
Beryllium				100.0	96.20	96.2	96.41	96.4	_
Cadmium				100.0	94.04	94.0	94.41	94.4	P
Calcium	I		1	30200.0	29140.00	96.5	29460.00	97.5	P
Chromium	1			200.0	190.50	95.2	191.10	95.6	P
Cobalt	1			200.0	193.10	96.6	193.80	96.9	P
Copper	1			200.0	196.10	98.0	196.10	98.0	P
Iron	1			30200.0	29510.00	97.7	29610.00	98.0	P
Lead				400.0	387.60	96.9	389.40	97.4	P
Magnesium				30200.0	29240.00	96.8	29400.00	97.4	Р
Manganese	1			200.0	193.50	96.8	193.50	96.8	P
Mercury				5.0	5.45	109.0	5.29	105.8	cv
Nickel				200.0	190.20	95.1	191.00	95.5	Р
Potassium				30200.0	30710.00	101.7	30660.00	101.5	Р
Selenium				100.0	94.74	94.7	97.19	97.2	Р
Silver	1			100.0	95.78	95.8	97.09	97.1	Р
Sodium				30200.0	29220.00	96.8	29010.00	96.1	P
Thallium	I			100.0	98.44	98.4	99.39	99.4	P
Vanadium	1			200.0	194.20	97.1	194.30	97.2	Р
Zinc				200.0	194.30	97.2	194.50	97.2	P
Cyanide	I			150.0	147.23	98.2			AS

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial (Calibration	Continuing Calibration							
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	м		
Lead	1000.0	985.70 98.6	400.0	390.20	97.6	388.8	97.2	Р		
Selenium	250.0	243.20 97.3	100.0	98.11	98.1	98.3	98.3	P		

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2A INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

Initial Calibration Source: Inorganic Ventures/Fisher

Continuing Calibration Source: SPEX/Fisher

	Initial	Calibration	Continuing Calibration							
Analyte	True	Found %R(1)	True	Found	%R(1)	Found	%R(1)	М		
Lead			400.0	388.10	97.0	389.6	0 97.4	Р		
Selenium			100.0	96.48	96.5	98.3	9 98.4	Р		

⁽¹⁾ Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN CRDL STANDARD FOR AA AND ICP

Lab	Name:	STL	BURLINGTON	Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				Init	CRDL Star	dard	for ICP Fina	1
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum				400.0	520.80	130.2	517.40	129.4
Antimony				120.0	119.20	99.3	121.60	101.3
Arsenic				20.0	19.33	96.6	17.24	
Barium				400.0	386.30	96.6	388.00	97.0
Beryllium		İ		10.0	9.99	99.9	9.87	98.7
Cadmium				10.0	9.83	98.3	9.46	94.6
Calcium				10000.0	10260.00	102.6	10160.00	101.6
Chromium				20.0	24.56	122.8	29.51	147.6
Cobalt				100.0	96.37	96.4	95.62	95.6
Copper				50.0	50.93	101.9	51.15	102.3
Iron				200.0	268.90	134.4	279.10	139.6
Lead				6.0	5.36	89.3	4.54	75.7
Magnesium				10000.0	10050.00	100.5	9947.00	99.5
Manganese				30.0	33.32	111.1	31.57	105.2
Mercury	0.2	0.26	130.0			- "		
Nickel				80.0	106.40	133.0	96.67	120.8
Potassium	j j			10000.0	10760.00	107.6	10800.00	108.0
Selenium	1			10.0	11.09	110.9	11.59	115.9
Silver				20.0	19.19	96.0	19.17	95.8
Sodium				10000.0	9713.00	97.1	9685.00	96.8
Thallium		1		20.0	19.32	96.6	19.68	98.4
Vanadium		1		100.0	97.23	97.2	95.93	95.9
Zinc				40.0	40.07	100.2	39.85	99.6

Control Limits: no limits have been established by EPA at this time

2B-IN CRDL STANDARD FOR AA AND ICP

Lab Name: STL BURLINGTON Contract: 23046

AA CRDL Standard Source: Inorganic Ventures

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

				CRDL Standard for ICP						
				Initi	Lal	Final	L			
Analyte	True	Found	%R	True	Found %R	Found	%R			
Lead	İ			6.0	6.69 111.5	5.56	92.7			
Selenium				10.0	10.36 103.6	10.69	106.9			

Control Limits: no limits have been established by EPA at this time

3 BLANKS

Lab Name: STL BURLINGTON Contract: 23046

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank	1		ontinuing Ca Blank (ug	g/L		•	Preparation Blank		м
			С	2	С		<u>C</u>		<u> </u>	
Aluminum	23.6	23.0	_	23.6			ט	23.600	U	P
Antimony		J 4.7		4.7	ŭ		ט	4.700	U	P
Arsenic	4.8	J 4.8	U	4.8	Ŭ	4.8	ע	4.800	U	P
Barium	5.9 t	5.9	U	5.9	U	5.9	U	5.900	U	P
Beryllium	0.2	0.2	U	0.2	U	0.2	ט	0.200	U	P
Cadmium	0.6	0.6	U	0.6	U		U	0.600	U	P
Calcium	182.1	182.1	ע	182.1	U	182.1	ע	182.100	U	P
Chromium	-3.1 E	3 -2.7	В	-3.2	В	-3.1	В	-2.813	В	P
Cobalt	2.0 t	2.0	ע	2.0	Ū	2.0	บ	2.000	U	P
Copper	2.4 0	2.4	ע	2.4	Ū	2.4	U	2.400	U	P
Iron	-33.3 I	33.3	ַ	33.3	U	-35.0	В	33.300	U	P
Lead	1.3 0	1.3	ן ט	1.3	U	-1.8	В	1.300	U	P
Magnesium	178.3	178.3	ט	178.3	ט	178.3	ט	178.300	U	P
Manganese	0.7	0.7	ע	0.7	U	0.7	ע	0.700	U	P
Mercury	0.1 F	0.1	В	0.2	В	0.1	В	0.100	Ŭ	CV
Nickel	-3.4 I	3 -3.0	В	-3.7	В	-2.8	В	-3.736	В	P
Potassium	393.0 t	393.0	Ū	393.0	U	393.0	ט	393.000	U	P
Selenium	3.4	3.4	Ū	3.4	ַ	3.4	ט	3.400	U	P
Silver	2.2	7 2.2	ַ	2.2	ש	2.2	Ū	2.200	U	P
Sodium	472.7	J 472.7	Ū	472.7	Ū	472.7	ַ	472.700	U	P
Thallium	5.7 t			5.7	ַ	5.7	Ū	5.700	ַ	P
Vanadium	2.0 t	2.0	ן ט	2.0	Ū	2.0	Ū	2.000	U	P
Zinc	1.0	1.0	U	1.0	Ū	1.0	U	2.354	В	P
Cyanide	10.0	J 10.0	ן ט	10.0	Ū	10.0	ับ	10.000	Ŭ	AS

3

BLANKS

_____ Contract: 23046 Lab Name: STL BURLINGTON

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank (ug/L)	С	1	Co C	ntinuing Blank (2		ation 3	С	Preparation Blank	С	м
Aluminum		\top	23.6	ן ט ן				T			P
Antimony		1 1	4.7			- 					P
Arsenic		T	4.8			<u> </u>					P
Barium		Ti	5.9		****						P
Beryllium		1 1	0.2			i					P
Cadmium		T	0.6	ַ		Î					P
Calcium			182.1			Ti i					P
Chromium			-3.1			iii					P
Cobalt			2.0	υl		i i					P
Copper		İ	2.4			ii					₽
Iron			33.3			i i					P
Lead			1.3			i i					P
Magnesium	İ		178.3	ט		ĪĪ					P
Manganese			0.7			İ					P
Mercury			0.1	ן ט		i					CV
Nickel			-3.2	B							P
Potassium			393.0	ן ט		Ti I					P
Selenium		i i	3.4			Tii					P
Silver		İ	2.2			İ					P
Sodium		j	472.7			Tii					₽
Thallium		Ì	5.7			ĬĬ					P
Vanadium			2.0	υl							P
Zinc		1 1	1.0								P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCW009

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	tinuing Blank		ation		Preparation Blank	
Analyte	(ug/L)	С	1	С	2	С	3	С	С	М
Lead	1.	3 U	1.	3 U	1.	3 U	1.:	3 U		P
Selenium	3.	4 U	3.	4 U	3.	4 U	3.	4 U		P

3

BLANKS

 Lab Name:
 STL BURLINGTON
 Contract:
 23046

 Lab Code:
 STLVT
 Case No.:
 23046
 SAS No.:
 SDG No.:
 GCW009

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank				tinuing Blank	Calibra (ug/L)	ation	Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С	С	M
Lead			1.	4 B						P
Selenium			3.	4 U						P

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: <u>STLVT</u> Case No.: <u>23046</u> SAS No.: _____ SDG No.: <u>GCW009</u>

ICP ID Number: TJA ICAP 4 ICS Source: Inorganic Ventures

	Tru	е	Init	ial Found		Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.A	3 %R	Sol.A	Sol.AB	%R	
Aluminum	500000	482740	493200	486900.0	100.9	490000	485200.0	100.5	
Antimony	0	596	-1	602.5	101.1	-3	598.1	100.4	
Arsenic	0	102	3	97.6	95.7	3	101.8	99.8	
Barium	0	503	2	487.2	96.9	2	484.9	96.4	
Beryllium	0	482	0	464.1	96.3	0	470.7	97.7	
Cadmium	0	938	-1	901.0	96.1	-1	906.6	96.7	
Calcium	500000	477840	482600	474100.0	99.2	474500	478900.0	100.2	
Chromium	0	483	1	463.2	95.9	0	468.2	96.9	
Cobalt	0	457	-1	444.0	97.2	-1	452.0	98.9	
Copper	0	526	4	499.2	94.9	4	499.7	95.0	
Iron	200000	191980	198400	192700.0	100.4	196000	194900.0	101.5	
Lead	0	49	-1	45.9	93.7	-2	45.1	92.0	
Magnesium	500000	521880	531500	521400.0	99.9	522400	529300.0	101.4	
Manganese	0	474	1	458.1	96.6	1	462.9	97.7	
Nickel	0	952	-2	922.8	96.9	-2	934.5	98.2	
Potassium	0	0	74	-17.4		-8	52.4		
Selenium	0	47	1	43.9	93.4	-1	43.3	92.1	
Silver	0	213	0	206.5	96.9	0	207.0	97.2	
Sodium	0	0	-403	-318.4		-409	-297.9		
Thallium	0	89	-5	84.9	95.4	-6	89.3	100.3	
Vanadium	0	478	3	458.3	95.9	3	462.3	96.7	
Zinc	0	998	3	970.6	97.3	3	978.0	98.0	

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL BURLINGTON Contract: 23046 Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

ICP ID Number: TJA ICAP 4

ICS Source: Inorganic Ventures

	Tru	1 e	Init	ial Found	Final Found				
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R	
Lead	0	49	-3	45.1	92.0	1	43.9	89.6	
Selenium	0	47	-9	39.3	83.6	-7	43.4	92.3	

7 LABORATORY CONTROL SAMPLE

Lab Name:	: STL BURLINGTON			Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.:	GCW009

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

***	Aqueous (ug/L)			Solid (mg/kg)					
Analyte	True	Found	%R	True	Found	С	Limits	%R	
Aluminum	51000.0	50940.00	99.9			Π			
Antimony	2000.0	2030.00	101.5						
Arsenic	1050.0	1043.00	99.3						
Barium	500.0	494.10	98.8					_	
Beryllium	500.0	492.20	98.4						
Cadmium	525.0	504.60	96.1						
Calcium	50000.0	49840.00	99.7						
Chromium	500.0	502.60	100.5						
Cobalt	500.0	485.90	97.2						
Copper	500.0	505.80	101.2					<u> </u>	
Iron	50500.0	51230.00	101.4						
Lead	1015.0	1000.00	98.5						
Magnesium	50000.0	50090.00	100.2					1	
Manganese	500.0	491.30	98.3						
Mercury	1.0	0.96	96.0					<u></u>	
Nickel	500.0	495.30	99.1					ļ	
Potassium	50000.0	49770.00	99.5					1	
Selenium	525.0	491.20	93.6					ļ	
Silver	500.0	414.90	83.0						
Sodium	50000.0	51030.00	102.1						
Thallium	550.0	529.10	96.2						
Vanadium	500.0	500.50	100.1						
Zinc	500.0	490.50	98.1						
Cyanide	120.0	114.80	95.7						

7 LABORATORY CONTROL SAMPLE

Lab Name:	STL BURLINGTON			Contract:	23046		
Lab Code:	STLVT	Case No.:	23046	SAS No.: _		SDG No.: GCW	009

Solid LCS Source:

Aqueous LCS Source: <u>Inorganic Ventures</u>

	Aqueous (ug/L)				Solid (mg/kg)					
Analyte	True	Found	%R	True	Found	С	Limits	%R		
Aluminum	51000.0	50390.00	98.8							
Antimony	2000.0	1979.00	99.0							
Arsenic	1050.0	1015.00	96.7							
Barium	500.0	489.10	97.8							
Beryllium	500.0	479.60	95.9							
Cadmium	525.0	490.00	93.3							
Calcium	50000.0	48650.00	97.3				1			
Chromium	500.0	493.10	98.6							
Cobalt	500.0	474.00	94.8							
Copper	500.0	500.50	100.1							
Iron	50500.0	49990.00	99.0							
Lead	1015.0	970.90	95.7							
Magnesium	50000.0	48810.00	97.6							
Manganese	500.0	481.30	96.3				[
Mercury	1.0	1.12	112.0							
Nickel	500.0	485.30	97.1		1	Π				
Potassium	50000.0	49570.00	99.1							
Selenium	525.0	484.20	92.2							
Silver	500.0	410.00	82.0							
Sodium	50000.0	50470.00	100.9							
Thallium	550.0	514.70	93.6							
Vanadium	500.0	489.60	97.9			Ī				
Zinc	500.0	477.90	95.6			Ī				
Cyanide	120.0	116.06	96.7			Π				

9 ICP SERIAL DILUTIONS

SAMPLE NO.

BLACSTSFW04L

Lab	Name:	STL	BURLINGTON	Contract: 23046
		~		• • • • • • • • • • • • • • • • • • • •

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

Matrix (soil/water): WATER Level (low/med): LOW_____

Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Differ- ence	Q	м
Aluminum	58.95	B	118.00	ט	100.0		P
Antimony	4.70	ן ט	23.50	טן			P
Arsenic	4.80	ן ט	24.00	U			P
Barium	15.11	B	29.50	ַ	100.0		P
Beryllium	0.30	B	1.00	ט	100.0		P
Cadmium	0.60	ן ט	3.00	ַ			P
Calcium	11880.00		11850.00	В	0.3		P
Chromium	1.40	ט	7.00	ן ט			P
Cobalt	2.00	Ū	10.00	ן ט			P
Copper	2.40	ט	12.00	ט		1	P
Iron	33.30	ט	166.50	ט			P
Lead	1.30	ן ט	6.50	ש			P
Magnesium	6885.00	İ	6871.00	В	0.2		₽
Manganese	4.24	В	4.81	В	13.4		P
Nickel	2.10	U	10.50	ט			P
Potassium	1264.00	В	1965.00	טן	100.0		P
Selenium	3.40	U	17.00				P
Silver	2.20	ט	11.00	ט			P
Sodium	2616.00	В	2363.50	טן	100.0		Р
Thallium	5.70	ט	28.50	טן			P
Vanadium	2.00	ן ט	10.00	ט			P
Zinc	2.78	B	14.20	В	410.8		P

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTO		Contract: 23046						
Lab Code: STLVT C	ase No.: <u>23</u>	046	SAS No.	No.: SDG No.: GCW009				
ICP ID Number:			Date:	7/1/2003				
Flame AA ID Number: <u>La</u> Furnace AA ID Number: _	chat Cyanid	le						
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	М		
	Cyanide		İ	10	10.0	AS		
						-		

Comments:

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON			Contract: 23046				
Lab Code: STLVT Case No.: 23046			SAS No.: SDG No.: GCW009			: GCW009	
ICP ID Number:			Date:	7/1/2003			
Flame AA ID Number: <u>Le</u> Furnace AA ID Number: _	eman Hydra	AA					
	Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м	
	Mercury	253.70		0.2	0.10	CV	

Comments:

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL BURLINGTON	Contract: 23046	
Lab Code: STLVT Case No.: 23046	SAS No.:	SDG No.: GCW009
ICP ID Number: TJA ICAP 4	Date: <u>7/1/2003</u>	
Flame AA ID Number:		
Furnace AA ID Number:		
Wave-	Back-	

Analyte	Wave- length (nm)	Back- ground	CRDL (ug/L)	IDL (ug/L)	м
Lead	220.353		3	1.3	P
Selenium	196.026		5	3.4	P

Comments:

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name:	STL BURLINGTON	Contract:	23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length	Interelement Correction Factors for:				
Analyte	(nm)	Al	Ca	Fe	Mg	Ba
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0008950	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000330	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0004320
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0006300	0.000000	0.0000090	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.000000	0.0000000	0.0000200	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	-0.0000220	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000200	0.0000000	-0.0000900	0.0000000	0.0000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000490	0.0000000	0.0000000
Zinc	213.86	0.0000250	0.0000000	0.0000630	0.0000000	0.0000000

Comments:	

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab	Name: STL BURLINGTON	Contract: 23046	Contract: 23046	
LaD	Name. SIL BURLINGION	Concrace. 23040	Oliciacc. 25040	

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave- length	II Interelement Correction Factors for:				
Analyte	(nm)	Со	Cr	Cu	Mn	Мо
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0072400
Antimony	206.84	0.0000000	0.0111600	0.0000000	0.0000000	-0.0024800
Arsenic	189.04	0.0000000	0.0004700	0.0000000	0.0000000	0.0013380
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0001150	0.0000000	0.0000000	0.0000000	0.0001350
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	-0.0016380
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.1059800	0.0000000	0.0000000	0.0000000	0.0036200
Lead	220.35	-0.0022600	-0.0001190	0.0000000	0.0000000	-0.0007540
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0004300	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	-0.0038600	0.0000000	0.0000000	-0.0042750
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007920
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0032700	0.0002540	0.0000000	-0.008140	0.0000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	-0.0160000
Zinc	213.86	0.0000000	0.000000	0.0003300	0.0000000	0.0000000

Comments:			
	-		

11A ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

ab Name: STL BURLINGTON	Contract: 23046
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ICP ID Number: TJA ICAP 4 Date: 6/30/2003

	Wave-		Interelement	Correction	Factors for:	
Analyte	length	•	rucereremenc	COLLECTION		
Anaryce	(nm)	Ni	Sb	Sn	V	Zn
Aluminum	308.22	0.0000000	0.0000000	0.1440400	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0006280	0.0000000
Boron	249.68	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	-0.000192	0.0000000
Iron	271.44	0.0000000	0.000000	0.0000000	0.0237000	0.0000000
Lead	220.35	0.0001240	-0.0002280	0.0000000	0.0005020	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0001660	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.000000	-0.1212200	0.0000000	0.0000000
Silver	328.07	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.000000	0.0000000	0.0000000	0.1177000
Thallium	190.86	0.0000000	0.000000	0.0000000	0.0025400	0.0000000
Tin	189.99	0.0000000	0.000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0052400	0.000000	0.0000000	0.0000000	0.0000000

Comments:		

12 ICP LINEAR RANGES (QUARTERLY)

Lab Name:	STL BURLINGTON	Contract: 23046	

ICP ID Number: TJA ICAP 4 Date: 7/1/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	м
Lead	10.00	10000.0	P
Selenium	10.00	5000.0	P

Comments:

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: AS

EPA	Preparation	Initial Volume	Volume
Sample No.	Date	mL	(mL)
BLACADSFW11	7/31/2003	50.0	50.0
BLACPDSFW43	7/31/2003	50.0	50.0
BLACSTPWP01	7/31/2003	50.0	50.0
BLACSTPWP03	7/31/2003	50.0	50.0
BLACSTPWR02	7/31/2003	50.0	50.0
BLACSTPWR03	7/31/2003	50.0	50.0
BLACSTSFW04	7/31/2003	50.0	50.0
BLUEPDSFW16	7/31/2003	50.0	50.0
BLUEPDSFW18	7/31/2003	50.0	50.0
BLUEPDSFW40	7/31/2003	50.0	50.0
ICV	7/31/2003	50.0	50.0
LCS0731A	7/31/2003	50.0	50.0
LCSD0731A	7/31/2003	50.0	50.0
PBW0731A	7/31/2003	50.0	50.0

13 PREPARATION LOG

Lab Name: STL BURLINGTON Contract: 23046

Method: CV

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
BLACADSFW11	8/5/2003	100.0	100.0
BLACADSFW11F	8/5/2003	100.0	100.0
BLACPDSFW43	8/5/2003	100.0	100.0
BLACPDSFW43F	8/5/2003	100.0	100.0
BLACSTPWP01F	8/5/2003	100.0	100.0
BLACSTPWP03F	8/5/2003	100.0	100.0
BLACSTPWR02F	8/5/2003	100.0	100.0
BLACSTPWR03F	8/5/2003	100.0	100.0
BLACSTSFW04	8/5/2003	100.0	100.0
BLACSTSFW04F	8/5/2003	100.0	100.0
BLUEPDSFW16	8/5/2003	100.0	100.0
BLUEPDSFW16F	8/5/2003	100.0	100.0
BLUEPDSFW18	8/5/2003	100.0	100.0
BLUEPDSFW18F	8/5/2003	100.0	100.0
BLUEPDSFW40	8/5/2003	100.0	100.0
BLUEPDSFW40F	8/5/2003	100.0	100.0
LCSDW0805F	8/5/2003	100.0	100.0
LCSW0805F	8/5/2003	100.0	100.0
PBW0805F	8/5/2003	100.0	100.0

13 PREPARATION LOG

Lab N	Name:	STL BURLINGTON	Contract:	23046

Method: P

EPA Sample No.	Preparation Date	Initial Volume mL	Volume (mL)
BLACADSFW11	8/8/2003	100.0	100.0
BLACADSFW11F	8/8/2003	100.0	100.0
BLACPDSFW43	8/8/2003	100.0	100.0
BLACPDSFW43F	8/8/2003	100.0	100.0
BLACSTPWP01F	8/8/2003	100.0	100.0
BLACSTPWP03F	8/8/2003	100.0	100.0
BLACSTPWR02F	8/8/2003	100.0	100.0
BLACSTPWR03F	8/8/2003	100.0	100.0
BLACSTSFW04	8/8/2003	100.0	100.0
BLACSTSFW04F	8/8/2003	100.0	100.0
BLUEPDSFW16	8/8/2003	100.0	100.0
BLUEPDSFW16F	8/8/2003	100.0	100.0
BLUEPDSFW18	8/8/2003	100.0	100.0
BLUEPDSFW18F	8/8/2003	100.0	100.0
BLUEPDSFW40	8/8/2003	100.0	100.0
BLUEPDSFW40F	8/8/2003	100.0	100.0
LCSDW0808H	8/8/2003	100.0	100.0
LCSW0808H	8/8/2003	100.0	100.0
PBW0808H	8/8/2003	100.0	100.0

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: <u>Lachat Cyanide QC8000</u> Method: <u>AS</u>

Start Date: 7/31/2003 End Date: 7/31/2003

EPA									-				7	lna	lу	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	K	s	Α	N	т	v	Z	С
No.				L	В	s	A	E	D	A	R	0	U	E	В	G	N	G	I		E	G	A	L		И	И
S0	1.00	1336		Τ																							Х
S10	1.00	1337																		L							_x
s30	1.00	1338																									x
S50	1.00	1339																								$oldsymbol{\perp}$	x
S100	1.00	1340																		L						$oldsymbol{\perp}$	_x
S200	1.00	1341																								ightharpoonup	x
s300	1.00	1342																									x
ICV	1.00	1343																									х
ICB	1.00	1344																									x
LRS	1.00	1345																									x
LRS	1.00	1346								ĪΠ																	x
ccv	1.00	1347																									$ \mathbf{x} $
CCB	1.00	1348								Ī															\Box		x
PBW0731A	1.00	1349								ĪĪ															П	\Box	$ \mathbf{x} $
ZZZZZZ	1.00	1350		ĺ						İ																	٦í
LCS0731A	1.00	1351					ĺ			İ															П		$\overline{\mathbf{x}}$
ZZZZZZ	1.00	1352																							\Box		_
LCSD0731A	1.00	1353																							\Box		x
ZZZZZZ	1.00	1354																									
ZZZZZZ	1.00	1355																									_
ZZZZZZ	1.00	1356																								\Box	_
ZZZZZZ	1.00	1357																									
ZZZZZZ	1.00	1358																									_
ccv	1.00	1359																									x
CCB	1.00	1400	-																								x
BLACSTSFW04	1.00	1401																									$ \mathbf{x} $
BLUEPDSFW40	1.00	1402																								\Box	x
BLUEPDSFW18	1.00	1403																									<u>x</u>
BLUEPDSFW16	1.00	1404																									\mathbf{x}
BLACPDSFW43	1.00	1405		Î					Γ	П										l						\Box	x
BLACSTPWP03	1.00	1406																									\mathbf{x}
BLACSTPWR02	1.00	1407																									x
BLACSTPWP01	1.00	1408																									x
BLACSTPWR03	1.00	1409																									$ \mathbf{x} $
BLACADSFW11	1.00	1410														L^-											$ \mathbf{x} $
ccv	1.00	1411																									$ \mathbf{x} $
CCB	1.00	1411																									x

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/11/2003 End Date: 9/11/2003

EPA													I	١na	ly	te	s										
Sample	D/F	Time	% R	A		Α	В	В	С	С	С	С			P			H		K	S		И		٧	Z	n
No.				L	В	s	A	E	D	A	R	0	ט	E	В	G	N	G	I		E	G	A	L		N	N
S0	1.00	1719													Х						X						
S	1.00	1723																									!
S	1.00	1727													x						X						
S	1.00	1730																									
LRS	1.00	1736													х						X						
LRS	1.00	1740													х						X						
LRS	1.00	1745				l									Х						X						
ICV	1.00	1750													х						X						
ICB	1.00	1755													x						X						\equiv \mid
ICSA	1.00	1759													x						X					Ш	
ICSAB	1.00	1804												L	x						Х					\Box	
CRI	1.00	1809													x						X						
CCV	1.00	1814													x						Х					Ш	\equiv I
CCB	1.00	1818													x						Х						\equiv \mid
ZZZZZZ	1.00	1823																								П	_
ZZZZZZ	1.00	1828																								П	_
ZZZZZZ	1.00	1832								П							Î		Ī								_ i
ZZZZZZ	1.00	1837													Ì												-j
ZZZZZZ	5.00	1842															ĺ										_
ZZZZZZ	1.00	1846															ĺ									П	_
ZZZZZZ	1.00	1851																									\equiv \mid
ZZZZZZ	1.00	1856															Ī									П	-I
ZZZZZZ	1.00	1900																									_
ZZZZZZ	1.00	1905															Ì									П	- $ $
CCV	1.00	1910													х						х					П	_
CCB	1.00	1914													х						х						- $ $
ZZZZZZ	1.00	1919																								П	\equiv I
ZZZZZZ	1.00	1924																	Ì								\equiv I
ZZZZZZ	1.00	1929																									\equiv \mid
ZZZZZZ	1.00	1933																								П	
ZZZZZZ	5.00	1938																								Ш	_
ZZZZZZ	1.00	1943																									_
ZZZZZZ	1.00	1947																									_ i
ZZZZZZ	1.00	1952																									_ i
ZZZZZZ	1.00	1957		П														T								\Box	i
ZZZZZZ	5.00	2001								Π							İ		一							П	_i
CCV	1.00	2006													х						х					П	_i
ССВ	1.00	2011													x						х					一	— j

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/11/2003 End Date: 9/11/2003

EPA													P	ma	ly	te	s									
Sample	D/F	Time	% R	A		A	В	_	С	- 1	_	-	С	- 1			М				A			V		1
No.	ļ			L	В	s	A	E	D	A	R	0	ָט	E	В	G	N	G	I	E	G	A	L		N	N
ZZZZZZ	1.00	2015																								
BLACSTPWR03F	1.00	2020																		X						L
BLACADSFW11	1.00	2025													x											L
ICSA	1.00	2029													x					X						L
ICSAB	1.00	2034													x					X						
CRI	1.00	2039													x					X						L
CCV	1.00	2044													Х					X						
CCB	1.00	2048													x					x						

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/13/2003 End Date: 8/13/2003

EPA	l												1	١na	ıly	te	s										
Sample	D/F	Time	% R	A	s	Α	В	В	С	С	С	С	С	F	P	М	М	Н	N	к	s	Α	N	T	$\overline{\mathbf{v}}$	Z	С
No.				L	В	s	A		D	A		0		E	В			G	I	Į.	E	G	A	L		N	N
S0	1.00	2131																Х									\Box
S0.2	1.00	2132										L				L		х									
S0.5	1.00	2134																Х									
S1	1.00	2136																X			<u> </u>						_
S5	1.00	2138							_									X									!
S10	1.00	2140											L					Х			L						
ICV	1.00	2141											L					X				ļ					_
ICB	1.00	2143											L					Х							\Box		[
CRA	1.00	2145											<u> </u>					X									
ccv	1.00	2147																X									
ССВ	1.00	2148																Х									
PBW0805F	1.00	2150																Х									[
LCSW0805F	1.00	2152											Ī					Х									[
LCSDW0805F	1.00	2154								Ī								Х									
BLACSTSFW04	1.00	2156										Π	Ī					X									_
BLACSTSFW04F	1.00	2158		Î					Π						Γ			Х									_
BLUEPDSFW40	1.00	2159		Ì		İ			Π									Х									_
BLUEPDSFW40F	1.00	2201			Ì				Ī	Ī			Ī					х			1						_
BLUEPDSFW18	1.00	2203				Ì				Ī			Ī					Х									_
BLUEPDSFW18F	1.00	2205		ĺ			<u> </u>											Х									\equiv l
CCV	1.00	2207																Х									_
CCB	1.00	2208		Ī									Î					Х									_
BLUEPDSFW16	1.00	2210											Ī					х									
BLUEPDSFW16F	1.00	2212																Х									_
BLACPDSFW43	1.00	2214																х									_
BLACPDSFW43F	1.00	2215		ĺ														Х									_
BLACSTPWP03F	1.00	2217								Ī								Х	l		Ī						_
BLACSTPWR02F	1.00	2219					1											Х									
BLACSTPWP01F	1.00	2221																Х									
BLACSTPWR03F	1.00	2223		Ī			ĺ											х									_
BLACADSFW11	1.00	2225					Ī			Ī								Х									_
ccv	1.00	2227																х									_
CCB	1.00	2228																х									_
BLACADSFW11F	1.00	2230																Х									_
ZZZZZZ	1.00	2232		Γ			Ì			ĺ																	_
ZZZZZZ	1.00	2234				İ	Ì		Ī	Ī																	i
ZZZZZZ	1.00	2236		Γ	İ	İ	Ì		Γ	ĺ	Ī		ĺ														_ _
ZZZZZZ	1.00	2237		Ì	Ī	İ	<u> </u>	Ì	Ī	Ī	Ī		Ī				Ì				Ī	Π		Ì			

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ANALYSIS RUN LOG

 Lab Name: STL BURLINGTON
 Contract: 23046

 Lab Code: STLVT
 Case No.: 23046
 SAS No.: SDG No.: GCW009

Instrument ID Number: Leeman Hydra AA Method: CV

Start Date: 8/13/2003 End Date: 8/13/2003

EPA													7	lna	ly	te	s									
Sample No.	D/F	Time	% :	R	1	_	A S	B A		1	C A	С 0	l i		1		M N	H G	N I	S E	A G	1 1	T L	V	z N	
ZZZZZZ	1.00	2239																								
ZZZZZZ	1.00	2241				i																				
ZZZZZZ	1.00	2243																								L
ZZZZZZ	1.00	2245																								L
CCV	1.00	2247																х								L
CCB	1.00	2249		Î	T	Ì												х								

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ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Lab Code: STLVT Case No.: 23046 SAS No.: SDG No.: GCW009

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/7/2003 End Date: 9/7/2003

EPA													A	na	ly	tes	3										\neg
Sample	D/F	Time	% R	A	s	Α	В	В	С	c	С	С	С	F	P	М	м	Н	N	к	s	Α	N	Т	v	Z	c
No.				L	В	s	A	E	D	A	R	0		E	В	G	N	G	I		E	G	A	L		И	N
S0	1.00	1935		Х	Х	Х	Х	Х	X	Х	Х	х	X	х	X	x	Х		X	X	X	Х	Х	Х	х	Х	\Box
S	1.00	1940		Х						x				х		x				X			Х				_
S	1.00	1944			х	х									х						X			Х			
S	1.00	1948					х	х	Х		Х	х	Х				Х		X			Х			х	X	[
LRS	1.00	1953		x	Х	х	Х	Х	Х	Х	Х	х	X	x	х	x	Х		X	X	X	Х	x	X	х	Х	!
LRS	1.00	1958		х	Х	х	Х	х	X	x	Х	х	Х	x	х	x	X		X	X	X	Х	х	х	х	X	
LRS	1.00	2004		x	х	Х	X	Х	Х	Х	X	x	х	x	х	x	Х		Х	X	X	Х	х	Х	х	Х	
ICV	1.00	2009		x	Х	Х	x	Х	X	Х	Х	х	x	х	х	x	Х		X	X	Х	Х	х	х	х	х	
ICB	1.00	2014		x	х	Х	X	X	X	x	Х	x	x	x	x	x	Х		X	X	X	Х	Х	Х	х	Х	
ICSA	1.00	2019		$ \mathbf{x} $	х	x	х	Х	Х	х	Х	x	x	x	x	x	Х		X	Х	Х	Х	Х	x	х	х	
ICSAB	1.00	2024		x	х	х	Х	Х	X	х	Х	x	Х	x	X	x	Х		X	X	X	Х	Х	Х	х	Х	_
CRI	1.00	2029		x	х	х	x	Х	Х	Х	Х	х	х	х	x	x	x		X	X	X	Х	X	х	x	X	
CCV	1.00	2034		x	Х	х	x	Х	Х	x	Х	x	x	х	х	x	Х		Х	X	X	Х	Х	x	$ \mathbf{x} $	x	_
CCB	1.00	2039		x	Х	Х	x	Х	Х	Х	Х	x	х	x	Х	x	Х		X	Х	X	Х	х	x	\mathbf{x}	X	
PBW0808H	1.00	2045		Х	х	Х	x	Х	Х	Х	Х	х	Х	x	x	x	Х		X	Х	X	Х	x	х	$ \mathbf{x} $	Х	
LCSW0808H	1.00	2050		x	х	х	x	Х	Х	x	X	х	х	х	X	x	Х		X	Х	Х	Х	Х	Х	\mathbf{x}	x	
LCSDW0808H	1.00	2055		x	х	х	х	х	X	X	Х	x	Х	х	х	x	X		Х	X	X	Х	Х	X	x	x	
BLACSTSFW04	1.00	2100		Х	х	х	x	х	Х	Х	Х	x	x	x	Х	x	Х		X	X	X	Х	Х	x	x	x	_
BLACSTSFW04L	5.00	2105		x	Х	х	Х	Х	Х	x	X	х	Х	x	Х	x	Х		X	Х	X	X	Х	Х	x	х	
BLACSTSFW04F	1.00	2110		х	х	Х	x	х	X	x	x	x	Х	x	x	x	Х		X	X	Х	х	Х	Х	x	X	
BLUEPDSFW40	1.00	2115		Х	Х	х	Х	Х	Х	х	X	x	Х	х	х	x	Х		X	Х	X	Х	X	x	х	Х	[
BLUEPDSFW40F	1.00	2120		х	х	х	Х	х	х	Х	Х	х	Х	x	x	x	х		X	Х	X	Х	Х	Х	х	x	
BLUEPDSFW18	1.00	2125		Х	х	х	X	Х	Х	Х	X	x	Х	x	х	x	Х		X	Х	X	Х	Х	х	х	х	!
BLUEPDSFW18F	1.00	2130		х	Х	x	Х	Х	x	x	x	x	x	х	x	x	Х		Х	Х	Х	Х	Х	Х	х	Х	_
CCV	1.00	2135		x	Х	Х	Х	X	x	x	X	х	х	х	х	x	Х		X		Ц.,	Х	Х	<u> — </u>	х	X	_
CCB	1.00	2140		x	Х	х	Х	Х	x	х	x	x	х	х	X	x	Х		х	Х	Х	x	x	х	x	Х	
BLUEPDSFW16	1.00	2145		x	Х	X	Х	Х	Х	Х	Х	x	х	х	х	x	Х		Х	Х	Х	Х	X		х	Х	!
BLUEPDSFW16F	1.00	2150		x	X	Х	x	Х	Х	х	X	x	X	х	Х	x	Х		X	Х	X	х	X	Х	х	Х	_
BLACPDSFW43	1.00	2155		x	Х	Х	X	X	х	X	Х	х	x	х	х	x	Х		X	Х	X	Х	Х	Х	х	х	
BLACPDSFW43F	1.00	2200		x	Х	X	X	X	Х	$ \mathbf{x} $	Х	x	х	x	Х	x	X		X	X	X	х	x	Х	х	Х	
BLACSTPWP03F	1.00	2205		х	х	X	x	х	Х	x	Х	х	х	х	х	x	Х		X	Х	Х	x	x	Х	x	x]
BLACSTPWR02F	1.00	2210				Х													X			_	-		_	X	:
BLACSTPWP01F	1.00	2216		х	Х	Х	Х	Х	Х	Х	Х	Х	x	х	Х	Х	Х		X	Х	х	Х	Х	Х	Х	х	
BLACSTPWR03F	1.00	2221		х	Х	Х	х	Х	Х	Х	X	х	х	х	Х	Х	X		X	х		Х	Х	X	Х	Х	
BLACADSFW11	1.00	2226		х	Х	Х	Х	Х	x	Х	Х	Х	х	х		Х	Х		Х	Х	x	Х	x	Х	Х	Х	
BLACADSFW11F	1.00	2231		х	Х	Х	х	Х	х	Х	X	х	x	х	х	Х	Х		x	Х	X	Х	Х	X	х	Х	I
ccv	1.00	2236		х	Х	Х	Х	Х	х	Х	X	х	x	х	х	Х	Х		х	X	х	X	х	X	x	Х	
CCB	1.00	2241		x	х	Х			_	-	_		_				х		X	Х	X	x	х	Х	x	x	

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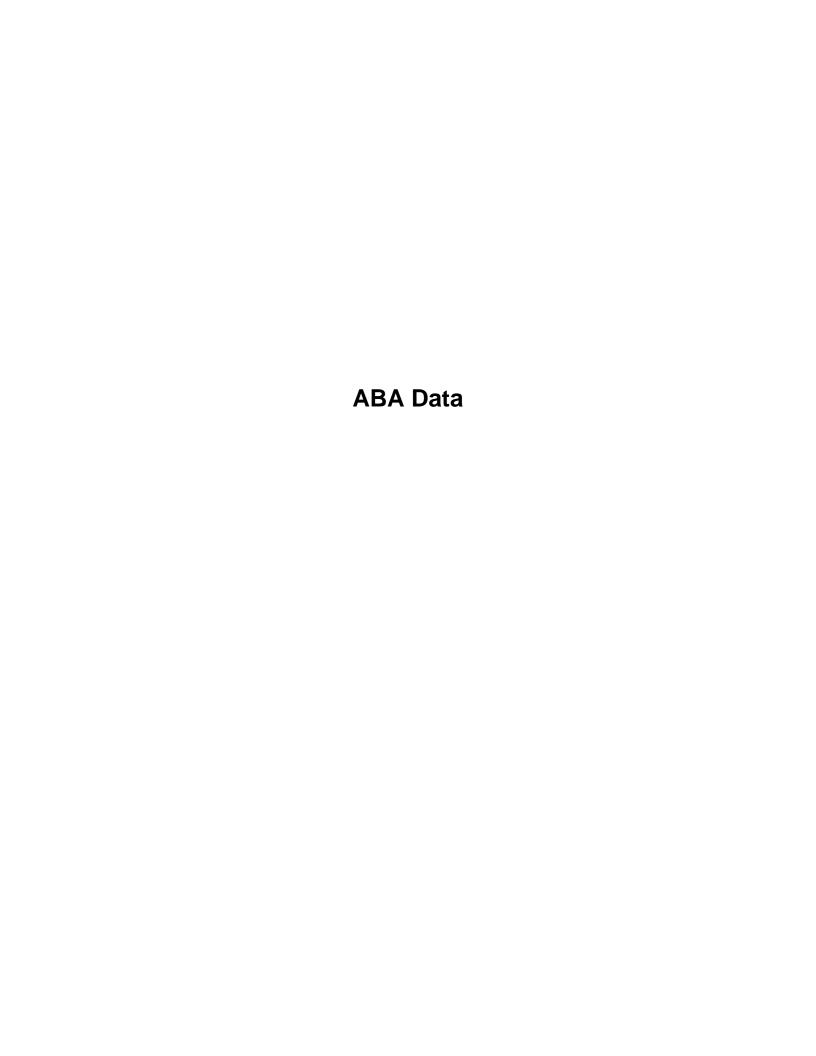
ANALYSIS RUN LOG

Lab Name: STL BURLINGTON Contract: 23046

Instrument ID Number: TJA ICAP 4 Method: P

Start Date: 9/7/2003 End Date: 9/7/2003

EPA													7	lna	ly	te	s										
Sample No.	D/F	Time	8 R	A L	S B	A S	B A	B E	l	C A		0 0	น บ		P B	ı	Z Z	H G	N		S E	A G	N A	T L			C N
ICSA	1.00	2246		Х	Х	х	х	Х	Х	Х	Х	х	х	х	Х	Х	Х		х	X	Х	Х	Х	х	х	Х	
ICSAB	1.00	2251		х	х	х	х	х	Х	x	х	x	x	х	х	х	x		х	Х	X	х	$ \mathbf{x} $	х	$ \mathbf{x} $	X	
CRI	1.00	2256		х	Х	х	х	х	Х	х	X	х	х	х	Х	X	x		х	Х	Х	x	x	X	х	х	
CCV	1.00	2301		х	Х	х	х	х	Х	х		х		х		х	x		Х	Х	х	х	Х	х	х	Х	
CCB	1.00	2307		х	х	х	Х	х	Х	x	х	х	х	х	х	x	х		х	Х	x	х	х	Х	х	Х	





BC Research Inc., BC Research and Innovation Complex, 3650 Wesbrook Mall, Vancouver, BC, Canada V6S 2L2 Telephone: (604) 224-4331 • Facsimile: (604) 224-0540 • Email: info@bcresearch.com • Website: bcresearch.com

Table 1: Modified ABA Results for STL Burlington Samples Batch 3 - Received July 29, 2003

Sample	Paste	Total	Sulphate	Sulphide	Maximum Potential	Neutralization	Net Neutralization	Fizz
	рН	Sulphur	Sulphur	Sulphur*	Acidity**	Potential	Potential	Rating
		(Wt.%)	(Wt.%)	(Wt.%)	(Kg CaCO3/Tonne)	(Kg CaCO3/Tonne)	(Kg CaCO3/Tonne)	
AJAX-WP-SUS-08-1.2	7.8	0.74	0.01	0.73	22.8	72.5	49.7	slight
AJAX-WP-SUS-09-1.0	8.2	0.57	<0.01	0.57	17.8	83.8	66.0	slight
AJAX-WP-SUS-10-2.0	4.1	0.09	0.06	0.03	0.9	-1.3	-2.2	none
CAPM-WP-SUS-20-4.0	7.2	< .02	<0.01	< .02	<0.6	3.3	3.3	none
CAPM-WP-SUS-21-2.5	7.7	0.25	<0.01	0.25	7.8	11.0	3.2	none
CAPM-WP-SUS-39-2.0	5.1	< .02	<0.01	< .02	<0.6	-1.3	-1.3	none
GRAN-BG-SSS-34-0.5	6.0	< .02	<0.01	< .02	<0.6	-5.0	-5.0	none
GRAN-BG-SSS-35-0.5	6.4	< .02	<0.01	< .02	<0.6	-5.0	-5.0	none
GRAN-BG-SSS-36-0.5	6.3	< .02	<0.01	< .02	<0.6	0.5	0.5	none
LUCA-BG-SSS-19-0.5	5.7	< .02	<0.01	< .02	<0.6	-6.0	-6.0	none
MAGN-TA-SSS-15-0.5	4.8	0.53	0.20	0.33	10.3	-2.3	-12.6	none
MAGN-TA-SSS-15-0.5-100	4.7	0.37	0.23	0.14	4.4	-1.3	-5.7	none
MAGN-WP-SUS-14-3.0	5.7	1.58	0.61	0.97	30.3	12.5	-17.8	slight
MAGN-WP-SUS-14-3.0 Rep.	5.9	1.47	0.61	0.86	26.9	13.5	-13.4	slight
MAGN-WP-SSS-16-0.5	3.1	0.32	0.27	0.05	1.6	-5.3	-6.9	none
MAGN-WP-SUS-17-2.0	7.7	0.77	0.02	0.75	23.4	31.0	7.6	slight
SHER-WP-SUS-23-3.5	7.2	< .02	<0.01	< .02	<0.6	4.8	4.8	none

^{*}Based on difference between total sulphur and sulphate-sulphur

^{**}Based on sulphide-sulphur



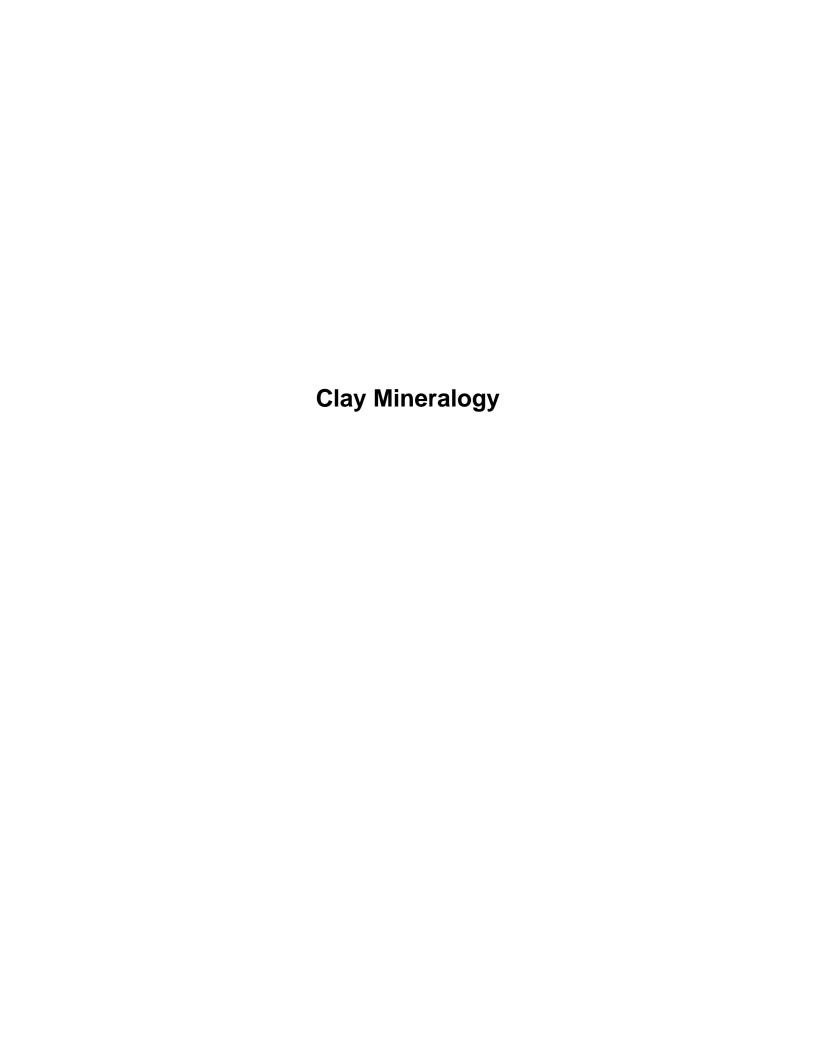
BC Research Inc., BC Research and Innovation Complex, 3650 Wesbrook Mall, Vancouver, BC, Canada V6S 2L2
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Table 2a: QA/QC for NP Determination (Modified ABA Method)

Sample	Neutralisation Potential (kgCaCO3/Tonne)	Neutralisation Potential (kgCaCO3/Tonne)
CAPM-WP-SUS-20-4.0	3.3	2.5
MAGN-WP-SSS-16-0.5	-5.3	-5.8
NBM-1 Reference (NP = 42)	39.5	-

Table 2b: QA/QC for Sulphur Speciation

Sample	Sulphur (Wt.%)	Sulphur (Wt.%)
Duplicates - total sulphur		
LUCA-BG-SSS-19-0.5	<.02	<.02
SHER-WP-SUS-23-3.5	<.02	<.02
Std. CSB (5.3%)	5.34	-
BCRI Std. (0.11%)	0.11	-
Dulpicates - sulphate sulphur		
AJAX-WP-SUS-08-1.2	0.01	0.01
MAGN-WP-SUS-17-2.0	<0.01	<0.01
BCRI 0.23% SO4-S Ref.	0.24	-







X-ray Diffraction Mineralogy with Impact www.ktgeo.com

(940) 597-9076 fax (940) 387-9980

4993 Kiowa Trail Argyle TX 76226

September 19, 2003

Cathy Bohlke
EA Engineering, Science and Technology
12011 Bellevue-Redmond Rd, Suite 200
Bellevue, WA 98005
425-451-7400 ext. 144

Subject: X-ray Diffraction Analysis

Project No.: 1389016-0007 K/T File No.: Z03222C

Dear Cathy,

This report presents the results of clay fraction (<4 micron) X-ray diffraction (XRD) analyses performed on 7 samples. These analyses are performed to provide mineralogy of the samples.

Enclosed find the tabular XRD data (weight percentage), diffraction traces for the sample and a detailed description of sample preparation and analytical procedures. For your convenience, I have sent a copy of this report via e-mail.

Unused portions of the sample will be returned upon request. If you have any questions concerning these results or if you need anything else please contact me at (940) 597-9076.

Thank you for using K/T GeoServices to perform your X-ray diffraction analyses and I look forward to working with you again in the future.

Sincerely,

James Talbot

NOTICE: The results and interpretations presented in this report are based on materials and information supplied by the client and represent the judgment of K/T GeoServices, Inc. This report is intended for the client's exclusive and confidential use, and any user of this report agrees that K/T GeoServices, Inc. and its employees assume no responsibility and make no warranties or representation as to the utility of this report for any reason. K/T GeoServices, Inc. and its employees shall not be liable for any loss or damage, regardless of cause, resulting from the use of any information contained herein.

Mineral Definitions

Phyllosilicate (Clay) Minerals

Smectite (Montmorillonite)

A clay mineral group synonymous with the montmorillonite group. The smectite group is composed of expandable (swelling) clay minerals. The general formula for Smectite is $Al_2(Si_4O_{10})(OH)_2$. Smectites are characterized by swelling in water and extreme colloidal behavior.

Illite & Mica

Illite & Mica (muscovite) are common non-expanding (non-swelling) minerals. Illite is the fine-grained clay mineral analogue to muscovite. Illite and Mica are hydrated silicates containing potassium, silica and alumina.

Kaolinite

Kaolinite is a common non-expanding (non-swelling) clay mineral. It is a hydrous aluminum silicate with the general formula $Al_2(Si_2O_5)(OH)_4$.

Chlorite

Chlorite is a common non-expanding (non-swelling) clay mineral. It is a hydrous aluminum silicate that often contains iron.

Reference for general mineral definitions:

Dictionary of Geological Terms, American Geological Institute, 1976, Anchor Press/Doubleday, Garden City, New York.

Mineral Definitions (continued)

Rock Forming (nonclay) Minerals

Amphibole

The term amphibole refers to a mineral group. Hornblende is a common member of this group.

Goethite

Goethite (FeO•OH) is a common weathering product of iron-bearing minerals such as siderite, magnetite, pyrite, etc.

Quartz

Quartz (SiO₂) is the most common rock-forming mineral.

<u>Plagioclase</u>

Plagioclase is a mineral series ranging in composition from Albite (NaAlSi $_3$ O $_8$) to Anorthite (CaAl $_2$ Si $_2$ O $_8$) and is one of the most common rock forming mineral groups.

Reference for general mineral definitions:

Dictionary of Geological Terms, American Geological Institute, 1976, Anchor Press/Doubleday, Garden City, New York.

Discussion of Terminology and Limitations

Clay Fraction (<4 micron size fraction)

For purposes of this report, the clay fraction is defined as the <4 micron ESD (Equivalent Spherical Diameter) fraction of the sample. Clay fraction does not mean clay minerals (phyllosilicates) only, it is a size term and as such this size fraction can and almost always does include non-clay minerals (quartz, plagioclase, etc.). This size fraction is used because it typically contains abundant clay minerals.

Clay Fraction weight %

The <4 micron size cutoff for this fraction is based on calculated settling rates for the specific centrifuge used in the sample preparation. This is not a strict size analysis but is considered a convenient cutoff to aid in clay mineral analysis.

Data table

Data are formatted as weight percent, but are actually calculated as weight fractions. Therefore, slight rounding errors may be observed in the formatted data.

Non-crystalline (X-ray amorphous) material

XRD methods can quantify crystalline material only. Organic non-crystalline material in large concentrations can be detected but not quantified. Therefore, any organic and/or non-crystalline material is not included in the accompanying results.

K/T GeoServices, Inc., Clay Fraction XRD Sample Preparation and Analytical Procedures

Sample Preparation

Samples submitted for clay fraction XRD analysis are first dried overnight in a convection oven at 60° C. The samples are then disaggregated using a mortar and pestle, weighed, and dispersed in a dilute sodium phosphate solution using a sonic probe. The samples are next size-fractionated using a centrifuge into bulk (>4 microns) and clay-size fractions (<4 microns equivalent spherical diameter (ESD)). The bulk fractions of each sample are dried and weighed in order to determine weight loss due to removal of clay-size materials. This weight loss is identified in the accompanying data table as "<4 Weight %." The clay suspensions (clay-size fractions) are decanted and vacuum deposited on membrane filters to produce oriented clay mounts. The oriented clay mounts are attached to glass slides and exposed to ethylene glycol vapor at 60 degrees C in a vacuum oven for a minimum of 12 hours to aid in detection and characterization of expandable clays.

Analytical Procedures

X-ray Diffraction (XRD) analyses of the samples are performed using a Rigaku automated powder diffractometer equipped with a copper X-ray source (40kV, 35mA) and a scintillation X-ray detector. The glycol solvated oriented clay mounts are analyzed over an angular range of two to fifty degrees two theta at a rate of one and one half degrees per minute.

Semi-quantitative determinations of clay fraction mineral amounts are done utilizing integrated peak areas (derived from peak-decomposition / profile-fitting methods) and empirical reference intensity ratio (RIR) factors determined specifically for the diffractometer used in data collection. The relative amounts of phyllosilicate minerals are determined from the patterns using profile-fitted integrated peak intensities and combined empirical and calculated RIR factors. Determinations of mixed-layer clay ordering and expandability are done by comparing experimental diffraction data from the glycol-solvated clay aggregates with simulated one dimensional diffraction profiles generated using the program NEWMOD written by R. C. Reynolds.

Weight Percent X-ray Diffraction Data

Project No.	1389016-0007	1389016-0007	1389016-0007	1389016-0007	1389016-0007	1389016-0007	1389016-0007
XRD#	1	2	3	27	28	29	30
Sample ID	AJAX-ST-PSD-04	AJAX-PD-SSD-06	AJAX-ST-SSD-52	MAGN-ST-PSD-01	MAGN-ST-PSD-02	MAGN-ST-PSD-03	MAGN-PD-SSD-11
<4 Weight%	2.4%	28.3%	3.2%	2.9%	2.9%	2.0%	13.2%
Smectite	17 %	16 %	3.8%	56 %	36 %	39 %	21 %
Illite & Mica	15 %	51 %	35 %	4.5%	22 %	24 %	36 %
Kaolinite	15 %	0%	14 %	0%	24 %	16 %	30 %
Chlorite	0%	13 %	0%	0%	0.5%	0.6%	0.5%
Amphibole	5.9%	0%	5.9%	9.6%	3.9%	8.8%	4.5%
Goethite	0%	20 %	0%	0%	0%	0%	0%
Quartz	36 %	0%	32 %	0%	9.1%	8.2%	5.8%
Plagioclase	11 %	0%	8.1%	30 %	4.4%	2.9%	2.7%
TOTAL	100%	100%	100 %	100%	100 %	100 %	100%



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(940) 597-9076 fax (940) 387-9980

4993 Kiowa Trail Argyle TX 76226

September 26, 2003

Cathy Bohlke
EA Engineering, Science and Technology
12011 Bellevue-Redmond Rd, Suite 200
Bellevue, WA 98005
425-451-7400 ext. 144

Subject: X-ray Diffraction Analysis

Project No.: 1389013-0002 K/T File No.: Z03222D

Dear Cathy,

This report presents the results of clay fraction (<4 micron) X-ray diffraction (XRD) analyses performed on 11 samples. These analyses are performed to provide mineralogy of the samples.

Enclosed find the tabular XRD data (weight percentage), diffraction traces for the sample and a detailed description of sample preparation and analytical procedures. For your convenience, I have sent a copy of this report via e-mail.

Unused portions of the sample will be returned upon request. If you have any questions concerning these results or if you need anything else please contact me at (940) 597-9076.

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Rock Forming (nonclay) Minerals

Amphibole

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Laumontite

Laumontite is a zeolite mineral with the formula Ca (Al₂Si₄O₁₂)• 4H₂O.

Quartz

Quartz (SiO₂) is the most common rock-forming mineral.

Plagioclase

Plagioclase is a mineral series ranging in composition from Albite (NaAlSi₃O₈) to Anorthite (CaAl₂Si₂O₈) and is one of the most common rock forming mineral groups.

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Weight Percent X-ray Diffraction Data

Project No.	1389013-0002	1389013-0002
XRD#	25	26
Sample ID	GRAN-ST-PSD-53	GRAN-ST-PSD-54
<4 Weight%	2.1%	1.9%
Smectite	6.5%	8.5%
Illite & Mica	39 %	64 %
Kaolinite	5.6%	8.8%
Chlorite	2.2%	1.6%
Amphibole	3.4%	5.5%
Laumontite	0%	0%
Quartz	31 %	9.9%
Plagioclase	13 %	1.9%
TOTAL	100%	100%